
SMITHSONIAN INSTITUTION THE LIBRARY

A. L. MELANDER
From the Library of
J. M. ALDRICH

J. M. Aldrich

Dates by Hagen. Bibl. Ent. II 254

1850, pp 1–75, Pl. II.
1851 " 76–156 " 3,4
1852 " 157–252 " 5,6
1852 " 253 – [414 O.S.]
1856 " [415 O.S.] – 474

See Osten Sackens figures on back of Preface leaf.

Bath Mr W. Wilson Saunders
compliments

INSECTA SAUNDERSIANA:

OR

CHARACTERS

OF

UNDESCRIBED INSECTS

IN

THE COLLECTION

OF

WILLIAM WILSON SAUNDERS, ESQ.,
F.R.S., F.L.S., &c.

VOL. I.

DIPTERA.—BY FRANCIS WALKER, F.L.S.

LONDON:
JOHN VAN VOORST, PATERNOSTER ROW.

M.DCCC.LVI.

LONDON:

PRINTED BY EDWARD NEWMAN,

9, Devonshire Street, Bishopsgate.

PREFACE.

In the present volume will be found characters of nearly all the undescribed species of Dipterous Insects in my collection which had been received to the end of the year 1854. Mr. F. Walker, a gentleman well known for his intimate acquaintance with this Order of Insects, has supplied the whole of the Manuscript. The Plates have been furnished by Mr. Westwood, whose entomological knowledge and skill in the delineation of Insects are universally admitted. To both I tender my best thanks.

W. WILSON SAUNDERS.

East Hill, Wandsworth,
Jan. 18th, 1856.

Index

Part I, to p. 75, in 1850
" II, " " 156, " 1851
" III " " 252 " 1852
" IV " " 414 " 1852
" V " " 474 " 1856

Acc. to C. in Pat.

INSECTA SAUNDERSIANA, &c.

Fam. XYLOPHAGI.

This family is allied to the Xylotomæ, the Asilici and the Stratiomydæ: it contains five genera, Beris, Diphysa, Xylophagus, Subula, and Metoponia, to which six more are here added.

XYLOPHAGUS, *Meig.*

X. triangularis? *Say.*

Xylophagus persequus, Fem.

Niger, thorace fulvo pubescente, antennis nigris, pedibus flavis, femoribus posticis fulvis, tibiis tarsisque posticis piceis basi fulvis, alis subcinereis apice fuscis.

Body black: eyes pitchy, fore part flat, its facets much larger than those elsewhere: sucker, palpi and feelers black; feelers more than twice the length of the head; third joint much longer than the fourth; fourth and following to the ninth short, nearly equal; tenth longer: chest covered with tawny down: abdomen linear, thinly clothed with hoary hairs, a little narrower than the chest and rather more than twice its length: legs yellow; tips of the feet pitchy; claws black; foot-cushions tawny; hind-thighs tawny; hind-shanks pitchy, tawny at the base; hind-feet black, first joint tawny, with the exception of the tip: wings very slightly tinged with gray, their tips brown; wing-ribs tawny; veins black, tawny at the base, slightly clouded with brown, which is most prevalent on the cross-veins of the disk; brand brown; tip cross-vein short, with two curves, the first upward, extremely slight, the second downward, slight; poisers pale tawny. Length of the body 5 lines; of the wings 9 lines.

North America.

SUBULA, *Macq.*

X. fasciatus, *Barnston, C. D. B. M.* 128. X. reflectens, *Wlk. C. D. B. M.* 129.

INOPUS, n. g.

Allied to Beris, but the scutcheon has no spines, and the little tip cross-vein of the wing is wanting.

Inopus despectus, n. s., Mas., Plate I. fig. 7.

Fuscus, capite subtus, scutelli margine abdominisque apice fulvis, antennis piceis, pedibus fulvis, tarsis piceis, alis cinereis.

Body brown, clothed with short tawny hairs: head beneath, hind border of the scutcheon and tip of the abdomen tawny: eyes black, meeting on the crown: feelers pitchy; second joint not half the length of the first; third and following joints forming a spindle-shaped club which is a little longer and broader than the first joint: abdomen linear, flat, a little narrower than the chest, and nearly twice its length: legs tawny; feet pitchy: wings gray; wing-ribs tawny; veins brown; poisers tawny. Length of the body $2\frac{1}{2}$ lines; of the wings 6 lines.

PHYCUS, n. g.

First joint of the feelers extremely long; second short, not more than one-eighth of the length of the first; third spindle-shaped, full half the length of the first; fourth conical, extremely small; abdomen compressed.

Phycus canescens, Plate I. fig. 5.

X. canescens, *Wlk. C. D. B. M.* 129.

DIMASSUS, n. g.

First joint of the feelers very long; second very short, not more than one-sixth of the length of the first; third spindle-shaped, rather more than half the length of the first; fourth very small, conical, terminating in a bristle, not longer than the second.

X. latistria, *Wlk. C. D. B. M.* 130. X. terminalis, *Wlk. C. D. B. M.* 129.

The characters which I have published of the last species are defective, owing to the imperfect state of the specimen examined, and therefore it is here described again.

DIMASSUS TERMINALIS, Plate I. fig. 6.

Mas. *Niger, lateribus scutelli margine abdominisque apice ferrugineis, abdominis segmentorum marginibus posticis albis, antennis pedibusque ferrugineis, tarsis nigris, alis subcinereis fusco bifasciatis.*

Body black: head adorned with white lustre, beset behind with black bristles, clothed beneath with hoary hairs; eyes pitchy, fore part flat, its facets hardly larger than those elsewhere: sucker black; palpi tawny, clothed with black hairs: feelers ferruginous; first and second joints beset with black bristles: chest adorned with two gray stipes, its sides and the hind border of the scutcheon ferruginous: abdomen dull black, adorned with gray lustre, slightly decreasing in breadth from the base to the tip, clothed on each side with white hairs, about twice the length of the chest; sides and tip ferruginous, the latter clothed with black hairs; hind borders of the segments white: legs ferruginous; hips black, tinged with gray; shanks beset with a few black bristles; feet black; four hinder feet yellow at the base; foot-cushions tawny: wings gray, slightly tinged towards the hind border with pale brown, adorned with two broad dark brown bands, the second extending near to the tip; wing-ribs tawny; veins black, tawny at the base and along part of the fore border; tip cross-vein very slightly curved upward till near the tip, where it has a short and equally slight downward curve; poisers tawny, their knobs dingy yellow, black towards the base. Length of the body 5—5½ lines; of the wings 8—9 lines.

New South Wales.

DIMASSUS DIVISUS, Mas.

Niger, abdomine basi fulvo, antennis nigris, pedibus fulvis, tibiis piceis basi fulvis, tarsis nigris basi albis, alis limpidis cinereo trifasciatis ad costam subfulvis.

Body black, shining: sucker, palpi and feelers black: feelers a little longer than the head; first and second joints beset with short black bristles: eyes red; all the facets very small: abdomen cylindrical, nearly twice the length of the chest; first, second and third segments bright tawny: legs tawny; shanks beset with a few short black bristles, pitchy for two-thirds of the length from the tips: feet black: first joint white, with the exception of the base, which is pitchy; foot-cushions tawny: wings colourless, with a slight tawny tinge along the fore border, adorned with three broad dark gray bands; the third extends nearly to the tip, and is

broader and paler than the first or the second; wing-ribs tawny; veins black, tawny along the fore border; tip cross-vein with two very slight curves, the first upward, the second downward: poisers pitchy, with yellow knobs. Length of the body 3 lines; of the wings $4\frac{1}{2}$ lines.

DIALYSIS, n. g.

First and second joints of the feelers short; second a little shorter than the first; third conical, not longer than the second; fourth like a bristle, downy, much longer than all the three preceding.

Dialysis dissimilis, Fem. (Xylophagus Americanus? *Cat. Dipt. B. M.* 128.)

Fulvus, capite albo micante, thorace fusco trivittato, abdominis maculis trigonis apiceque piceis, antennis fuscis basi fulvis, pedibus fulvis, tarsis piceis, alis subfuscis.

Body tawny, clothed with short tawny hairs: head adorned with white lustre: eyes red, parted above by a very narrow interval: sucker and palpi dark tawny: feelers brown; first and second joints tawny: chest adorned with three brown stripes, its sides in front and the breast whitish: abdomen more than twice the length of the chest, tapering to the tip; each segment adorned with a pitchy, nearly triangular band; the latter segments all pitchy: legs pale tawny; feet pitchy; claws black: wings pale brown, with a slight tawny tinge, darker along the veins; wing-ribs tawny; veins brown, tawny towards the base; poisers tawny. Length of the body 4 lines; of the wings 7 lines.

CYCLOTELUS, n. g.

First joint of the feelers very long; second very short; third and following forming a compound joint, which is as long as the first and compressed at the tip: tip of the abdomen of the female armed as in the Asilici with a circlet of spines.

Cyclotelus nigroflamma, Fem.

Niger, capite cano, thorace cinereo-fulvo pubescente, abdomine argenteo unifasciato apice ferrugineo, antennis ferrugineis, pedibus piceis, tibiis anterioribus tarsisque posterioribus fulvis, alis limpidis anticè fulvis posticè cinereis nigro-unifasciatis.

Body black: head hoary and beset with black bristles behind, clothed with black hairs beneath: eyes pitchy, fore part rather flat, its facets a

little larger than those elsewhere: palpi pitchy. feelers dark ferruginous hardly longer than the head: chest indistinctly striped with grayish tawny down: abdomen cylindrical, about twice the length of the chest; hind border of the third segment adorned with a silvery band; tip ferruginous, armed with a circlet of short black spines: legs pitchy; four front-shanks and four hinder feet tawny, tips of the latter pitchy; claws black; foot-cushions yellow: wings colourless, bright tawny along the veins beneath the fore border towards the base, gray along the hind border and at the tip, adorned at two-thirds of the length with a blackish band which fades towards the hind border; wing-ribs ferruginous; veins black, tawny for half the length from the base; tip cross-vein long, with two curves, the first upward and slight, the other downward and more distinct; poisers pitchy. Length of the body $5\frac{1}{2}$ lines; of the wings $9\frac{1}{2}$ lines.

South America.

Cyclotelus pruinosus, Plate I. fig. 4.

Mas. *Niger cano micans, thorace fusco pubescente, abdomine picco* (fem. *apice ferrugineo*), *antennis nigris basi fulvis, pedibus nigro-piceis, tibiis anterioribus tarsisque posterioribus fulvis, alis subfuscis ad costam subfulvis, fusco unifasciatis.*

Body black, adorned with hoary lustre: head beset behind with black bristles, clothed beneath with black hairs: eyes adorned with iridescent semicircles, nearly flat in front, where the facets are larger than those elsewhere: sucker and palpi black; tip of the sucker pitchy and clothed with tawny hairs: feelers black, very much longer than the head; first joint tawny, clothed with short black hairs: chest indistinctly striped with pale brown down: abdomen cylindrical, pitchy, very much longer than the chest; second, third and fourth segments impressed with cross rows of little punctures; appendages of the tip tawny; tip of the female ferruginous, armed with a circlet of short black spines: legs pitchy black; knees, four hinder feet towards the base, and four front-shanks tawny; claws black; foot-cushions pale tawny: wings pale brown, with a tawny tinge along the fore border, and having at two-thirds of the length a broad brown band which fades towards the hind border; wing-ribs ferruginous; veins black, tawny towards the base and along the fore border; tip cross-vein like that of *C. nigroflamma*; poisers pitchy. Length of the body $4\frac{3}{4}$ lines; of the wings 8 lines.

South America.

Cyclotelus socius, Fem.

Niger cano micans, thorace fusco pilis fulvis vestito, abdomine subtus apicem versus fulvescente, antennis nigris basi fulvis, pedibus piceis, tibiis anterioribus tarsisque posterioribus fulvis, tarsis anticis nigris latis, alis subcinereis basi subfulvis nigro-unifasciatis.

Body black: head adorned with hoary lustre, beset behind with black bristles, clothed beneath with black hairs: eyes adorned with iridescent simicircles, nearly flat in front, where the facets are larger than those elsewhere: sucker pitchy, clothed with tawny hairs; palpi black, beset with short black bristles: chest and breast tinged with hoary; disk of the chest brown, clothed with short tawny hairs, its sides beset with a few black bristles: abdomen cylindrical, full twice the length, thinly clothed with tawny hairs, adorned with a hoary tinge above and with a tawny tinge beneath towards the tip, which is ferruginous and armed with a circlet of short ferruginous spines: legs pitchy, thinly beset with short black bristles; four front-shanks and four hinder feet tawny, tips of the latter pitchy; fore-feet black, broad; claws black; foot-cushions pale tawny: wings pale gray, with a slight dull tawny tinge towards the base, and adorned at two-thirds of the length with a broad black band which fades towards the hind border; wing-ribs ferruginous; veins black, tawny towards the base; tip cross-vein like that of *C. nigroflamma*; poisers pitchy. Length of the body 4½ lines; of the wings 7 lines.

South America.

Cyclotelus lætus, Fem.

Niger glauco micans, thorace fulvo pubescente, abdominis segmentis posterioribus omninò nigris apice ferrugineo, antennis piceis basi fulvis, pedibus fulvis, tarsis anticis nigris latis, alis obscurè fulvis nigro unifasciatis.

Body black, adorned with bluish-white lustre: eyes adorned with iridescent circles, nearly flat in front, where the facets are larger than those elsewhere: sucker pitchy, clothed with tawny hairs; palpi black: feelers pitchy, longer than the head; first joint tawny, with a pitchy tip: chest indistinctly striped with tawny down: abdomen cylindrical, very much longer than the chest, thinly clothed with hoary hairs; latter segments black, clothed with tawny hairs, which are most frequent at the ferruginous tip: legs bright tawny, thinly clothed with short tawny hairs; tips of the feet and fore-knees pitchy; claws black; foot-cushions dingy white; fore-

feet black, broad: wings dark tawny, having at two-thirds of the length a broad black band which fades towards the hind border; wing-ribs and veins dark tawny; tip cross-vein like that of *C. nigroflamma*; poisers tawny. Length of the body 4 lines; of the wings 7 lines.

South America.

NONACRIS, n. g.

Antennæ septem-articulatæ; articulus 2us 1o multo longior; 3us et sequentes breves: alis vena transversa apicalis nulla; areolis una discoidalis, submarginalis una, posticæ quatuor; 4ta clausa

Feelers seven-jointed; second much longer than the first; third and following joints short: no tip cross-vein in the wing; one discoidal areolet: one submarginal areolet; four posterior areolets, the fourth closed before the border.

Nonacris transequa, Mas.

Fulvus, antennis nigris basi fulvis, pedibus fulvis, tarsis apice piceis, alis fulvis.

Body tawny: eyes pitchy, convex, meeting on the crown; facets small: eyelets forming a little triangle: feelers black, clothed with short black hairs; first and second joints tawny; third and fourth dark tawny: chest clothed with short yellow hairs: abdomen linear, flat, a little narrower than the chest and full twice its length: legs tawny, rather long and slender, especially the hind pair; shanks darker than the thighs; feet pitchy towards the tips; foot-cushions pale tawny: wings and wing-ribs tawny; veins pitchy, tawny towards the base; poisers tawny, rather long. Length of the body 4½ lines; of the wings 9 lines.

South America.

Fam. TABANII.

PANGONIA, *Latreille.*

The species of this genus are not very numerous, but it contains several groups or subgenera, for which the following names are proposed.

Nuceria. = *Tanyrrhina* Latr.

Among the characters of this division the length of the sucker is most apparent: the chest is slightly striped: the abdomen is more or less

tawny, with a black stripe on the back: the tip cross-vein of the wing has a short stump, or the submarginal areolet is partly divided.

1. longirostris
2. Amboinensis
3. rostrata ♀
4. gulosa
5. varicolor

Fidena.

Much resembles Nuceria, but the characters are modified; the sucker is generally shorter, the chest and the abdomen are not striped, the latter is tawny: the tip cross-veinh as no stump; the posterior submarginal areolet is closed.

1. leucopogon ♂♀
2. basalis
3. sorbens
4. nana

Dicrania, *Macquart.*

Distinguished from Fidena by the third feeler-joint, which is armed with a long horn.

1. comprehensa

Melpia.

The sucker varies from half the length to the whole length of the body: the abdomen is very broad: the colour of the body and of the wings is usually dark; the tip cross-vein has no stump.

1. rufohirta ♂♀ = nigripennis ♂
2. nigrohirta
3. fulvithorax
4. piceohirta
5. badia
6. eriomera
7. Beseckii
8. exeuns
9. tenuistria

Scaptia.

Distinguished by the stout convex body, and by the robust sucker, which is hardly longer than the head: the colour is black, adorned with patches of yellow or tawny hairs: the tip cross-vein has no stump; the posterior submarginal areolet is open in the male, closed in the female.

1. aurata ♂♀
2. auriflua?
3. solida
4. patula
5. plana
6. crassa

Pangonia.

The sucker is short and stout, hardly exceeding the length of the head; the body is stout and square-shaped; the stump on the angle of the tip cross-vein is rudimentary or none; the posterior submarginal areolet is closed in both sexes.

1. guttata
2. media
3. submacula
4. marginata

Tacina.

Seems to connect Fidena with Pangonia: the mouth is more slender than that of Pangonia, and full twice the length of the head: the body is more slender and rounded: the stump on the angle of the tip cross-vein is rather long.

1. micans
2. maculata
3. ferruginea

Phara.

Allied to Tacina, but the mouth is rather shorter and stouter; the body is somewhat thicker; the wings are generally shorter.

1. melanopyga
2. chrysostigma
3. crassipalpis
4. lateralis
5. varicolor
6. angulata
7. multifaria
8. spiloptera
9. atricornis
10. cingulata
11. alboatra
12. obesa
13. adjuncta
14. conjuncta
15. barbata
16. leucomelas
17. sexfasciata
18. bifasciata

Clanis.

Resembles Fidena, but the mouth is shorter and stouter, though longer than that of Pangonia.

1. contigua
2. inconspicua
3. gemina
4. quadrimacula
5. Winthemi
6. Jacksonii
7. concolor
8. constans
9. mediocris
10. Lerda
11. Adrel
12. divisa

13. fulvifascia
14. tricolor
15. gemella
16. conjungens
17. gibbula
18. parva

Osca.

Allied to Pangonia, but distinguished by the short wings, and by the shape of the abdomen, which is rather flat, and increases in breadth from the base to the tip; the latter is truncated.

1. depressa ♂♀ [Brèthes]
2. albithorax

Philoliche, *Hoffmansegg.*

Has long wings, a rather narrow body, and a short but somewhat slender mouth; there is a rather long stump on the angle of the tip cross-vein; the abdomen is spindle-shaped.

1. fuscipennis
2. notabilis
3. umbra
4. fusiformis
5. viridiventris

Scione.

Allied to Fidena: the first and fourth posterior areolets, and the first inferior areolet are closed near the border, the second and third posterior areolets are partly united; the angle of the tip cross-vein is very straight and has no stump: the mouth is slender, and about half the length of the body.

1. incompleta ♂

Plinthina.

Allied to Clanis, but distinguished by the spot on the fore border of the wing, and by the shortness of the areolet, whose side veins are united and form a long petiole.

1. macroporum ♀

Scarphia.

Allied to Phara, but the tip cross-vein is short, has no stump, and is almost straight, its angle being very indistinct.

1. directa ♂

LILEA.

Allied to Philoliche, but approaching still nearer to Tabanus: third joint of the feelers small, convex above and beneath; compound joint long, slender, tapering, curved upward: stump of the tip cross-vein about twice the length of the shorter side of the angle whence it springs.

1. Roei 2. lurida

PANGONIA NANA, Mas.

Fulva, thorace ferrugineo, palpis fulvis apice nigris, antennis pedibusque fulvis, alis subcinereis ad costam fulvis.

This species will form a subdivision of the group, for the posterior submarginal areolet is very short, being closed at one-fourth of its length from the border. Body tawny, clothed with short tawny hairs: head thickly clothed beneath with white hairs: upper region of the eyes reddish-brown, flat, composed of very large facets, clothed with tawny hairs; lower region brassy, convex, composed of very small facets, clothed with white hairs: sucker black, nearly as long as the body, pitchy at the base; palpi tawny with black tips, a little shorter than the feelers: feelers tawny; first joint twice the length of the second; third twice the length of the first; fourth slightly curved, composed of six divisions, of which the first, second, third and fourth are short; the fifth is much longer than the fourth; the sixth is near twice the length of the fifth: chest ferruginous: abdomen obconical, longer and a little broader than the chest: legs tawny, clothed with short tawny hairs; feet darker towards the tips; claws black: wings slightly gray, tawny along the fore borders; wing-ribs and veins tawny; veins pitchy towards the tips; scales and poisers tawny. Length of the body 4½ lines; of the wings 12 lines.

Brazil.

PANGONIA COMPREHENSA, Plate I. fig. 2.

Nigro-fusca, abdominis apice ventreque fulvis, antennis ferrugineis, pedibus fulvis, alis fuscis.

Body deep brown, clothed with short hairs of the same colour: head beneath tawny and clothed with tawny hairs: eyes coppery, divided, as usual in the males, into one region of large and another of small facets: sucker twice the length of the body; palpi black, clothed with short black hairs: feelers pale ferruginous; first and second joints clothed with short

tawny bristles; horn longer than the third joint whence it springs, curved downward, beset with long black bristles; compound joint much curved upward, not so compact as is usual, but long and slender, and composed of joints of equal size: abdomen much broader but not longer than the chest, tawny beneath; the tip bright tawny above, clothed beneath with pale yellow hairs: legs tawny; feet brown towards the tips; claws black: wings pale brown, darker along the fore border and at the base; wing-ribs and veins tawny; tip cross-vein forming an obtuse angle near the base; posterior submarginal areolet closed at some distance from the border; poisers tawny. Length of the body 6 lines; of the wings 14 lines.

Para.

Pangonia exeuns, Fem.

Ferruginea, thoracis disco piceo, abdomine rufo, palpis fulvis, antennis ferrugineis basi fulvis apice nigris, pedibus ferrugineis, alis subcinereis ad costam fulvis.

Body pale ferruginous, clothed with tawny hairs: head thickly clothed beneath with yellow hairs; eyes black, clothed with tawny hairs; fore part flat, its facets not larger than those elsewhere: sucker black, nearly half the length of the body; palpi tawny, triangular, very short; lancets ferruginous: feelers ferruginous with black tips; first and second joints tawny, short, beset with black bristles; third joint narrower than the first and the second, diminishing towards the tip; the following joints are closely united with the third, and appear like a single one which is pointed and slightly curved, and whose divisions successively decrease in breadth: disk of the chest pitchy: abdomen dark red, oval, shining, much longer and broader than the chest; sides clothed with black hairs; hind borders of the segments clothed on each side with tawny hairs: legs ferruginous, clothed with short black hairs; hind legs darker than the two other pair; foot-cushions pale tawny; claws black: wings slightly gray, tawny along the fore border for three-fourths of the length; wing-ribs and veins tawny; tips of the veins black; scales and poisers tawny. Length of the body 6 lines; of the wings 15 lines.

Brazil.

PANGONIA SUBMACULA, *C. D. B. M.* 142.

Nigra fulvo pubescens, capitis vertice piceo vittato, thoracis lateribus flavo nigroque pilosis, abdomine utrinque fasciculis nigris albisque ornato, segmenti 4i margine postico albo fasciculato, palpis fulvis, antennis ferrugineis, pedibus piceis, alis subcinereis, basi costa venarumque marginibus subfulvis.

Fem. Body black: head covered with tawny down, thickly clothed behind and beneath with pale yellow hairs; a pitchy stripe on the crown: eyes pitchy; fore part rather flat; facets very small: sucker black; palpi tawny: feelers ferruginous, clothed at the base with black hairs: chest slightly covered with tawny down, clothed on each side with black, and more thickly with pale yellow hairs: abdomen adorned on each side with alternate patches of black and white hairs; a patch of white hairs on the hind border of the fourth segment: legs pitchy, clothed with short black hairs; foot-cushions dark tawny: wings slightly gray, somewhat tawny at the base on the fore border and along the borders of the veins; wing-ribs and veins pitchy; scales dark tawny; poisers pale tawny with black knobs. Length of the body 8 lines; of the wings 20 lines.

West Australia.

Very much resembles *P. marginata*, but its veins are darker and more strongly marked, and the tip cross-vein is more curved.

PANGONIA ALBOATRA, Plate I. fig. 3.

Nigra, capite antico ferrugineo, abdomine fasciculis albis ornato, antennis pedibusque nigris, alis fusco-cinereis.

Fem. Body black: head ferruginous in front: eyes pitchy; fore part slightly convex, its facets very small: mouth and feelers black: abdomen adorned with a large, transverse, half-elliptical spot of silvery white down on the hind border of the second segment; a small patch of white hairs on each side of the hind border of the fourth and fifth segments: legs black, clothed with short black hairs: wings gray, tinged with brown, which disappears along the hind border; wing-ribs and veins ferruginous; scales dark tawny. Length of the body 7 lines; of the wings 18 lines.

Cape.

Pangonia obesa.

Nigra, fulvo hirta, capite subtus flavo-piloso, abdominis segmentorum marginibus posticis albo fimbriatis, palpis fulvis, pedibus piceis, alis fusco-subcinereis.

Fem. Body black: head covered above with shining yellowish-white down, clothed beneath with pale yellow hairs: eyes pitchy: sucker pitchy, more than half the length of the body; palpi tawny; lancets ferruginous: feelers ferruginous?: chest and breast clothed with tawny hairs: abdomen nearly elliptical, longer and broader than the chest; a fringe of white hairs along the hind border of the second segment, and on each side of the hind border of the following segments: legs dark pitchy: wings slightly gray, tinged with brown; wing-ribs and veins tawny; scales whitish with pale yellow borders; poisers pitchy. Length of the body 6 lines; of the wings 14 lines.

Cape.

Pangonia concolor, Fem.

Testacea, pectore ventreque canescentibus, antennis fulvis apice nigris, pedibus fulvis, alis cinereis ad costam subfulvis basi limpidis fuscoque subfasciatis.

Body testaceous, clothed with very short tawny hairs: head clothed beneath with whitish hairs; eyes brassy, clothed with tawny hairs; fore part nearly flat, its facets very little larger than those elsewhere: mouth black, as long as the chest: palpi and feelers tawny; first joint of the feelers clothed with long black hairs, second with long black hairs; compound joint curved upward, tapering to the tip, which is black and beset with a few black bristles: breast covered with a hoary tinge, clothed with whitish hairs: abdomen obconical, broader and longer than the chest; under side with a hoary tinge towards the base, which is clothed with whitish hairs, and impressed with a cross row of little punctures: legs tawny, thinly clothed with short black hairs; spines of the shanks dark tawny; claws black: wings gray for two-thirds of the length from the tip, thence to the base colourless, with a tawny tinge along the fore border, and adorned with a broad slightly oblique brown band, which extends from the fore border to the middle of the disk; wing-ribs, veins and poisers testaceous; stump of the tip cross-vein short, proceeding from an

obtuse angle; posterior submarginal areolet open on the border. Length of the body 6½ lines; of the wings 15 lines.

New Holland.

PANGONIA CONSTANS, Fem.

Fusca, capite antice abdomineque fulvis, hujus vitta interrupta apiceque piceis, antennis rufis apice nigris, pedibus fulvis, tarsis piceis, alis fulvo-subcinereis.

Body dark brown: head tawny in front, whitish, and clothed with white hairs beneath: eyes black, clothed with tawny hairs: mouth black, nearly as long as the chest: palpi ferruginous: feelers red; compound joint hardly curved upward, tapering from the base to the tip, which is black, and beset with a few short black bristles: chest clothed with tawny hairs; sides and breast clothed with longer whitish hairs: abdomen tawny, elliptical, broader but hardly longer than the chest, clothed with short tawny hairs; the back adorned with a pitchy stripe, which is interrupted on the hind border of each segment, and extends to the sides of the fourth, fifth, and sixth segments; under side with a whitish tinge: legs dark tawny; thighs clothed with long whitish hairs; shanks and feet thickly clothed with short black hairs; spines of the shanks tawny; feet pitchy; claws black; foot-cushions pale tawny: wings slightly gray, with a dark tawny tinge beneath the fore border and along some of the veins of the disk; wing-ribs dark tawny; veins black, dark tawny towards the base; tip cross-vein slightly curved at the base, but having no angle nor stump; posterior submarginal areolet very open on the border; poisers tawny. Length of the body 6 lines; of the wings 14 lines.

Tasmania.

PANGONIA JACKSONII, *C. D. B. M.* 140.

Var. Fem. *Nigra flavo-hirta, abdomine ferrugineo, vitta apiceque nigris, palpis antennisque ferrugineis, pedibus nigris, femoribus apice tibiisque ferrugineis, alis subcinereis basi costaque fulvis, disci nervo transverso fusco marginato.*

Body black: head covered with hoary down, thickly clothed behind and beneath with pale yellow hairs: eyes black: sucker black, full half the length of the body; palpi ferruginous: feelers ferruginous, darker towards the tips: chest, sides and breast clothed with pale yellow hairs: abdomen ferruginous; a black interrupted stripe on the middle of the back,

hind part black: thighs black with ferruginous tips; shanks ferruginous; feet black; foot-cushions pitchy; wings slightly gray; base and fore border tawny; a short brown band clouding the sides of the cross-vein in the disk of the wing; wing-ribs and veins pitchy; scales yellowish; poisers tawny. Length of the body 6 lines; of the wings 15 lines.

West Australia.

PANGONIA LERDA, *White, Zool. Voy. Erebus and Terror*, Fem.

Nigra, thoracis lateribus ferrugineis, pectore cano, abdomine ferrugineo vitta interrupta nigra ornato, antennis nigris basi fulvis, pedibus ferrugineis, alis cinereis basi costa nervorumque marginibus fuscis.

Head pale yellow above, hoary and thickly clothed with pale yellow hairs beneath; a ferruginous club-shaped mark on the crown: eyes black, clothed with hoary hairs, parted above by a moderate interval; the facets very small: sucker black, a little shorter than the chest; lancets bright ferruginous; palpi dark tawny, clothed with short black hairs: feelers black; first and second joints tawny; first beset with black bristles; third ferruginous; compound joint curved upward, tapering from the base to the tip, much longer than the three preceding joints: chest black; sides ferruginous, clothed with tawny hairs: breast hoary, clothed with tawny hairs; abdomen ferruginous, obconical, a little broader and longer than the chest, clothed with tawny hairs, which are chiefly on the hind borders of the segments; the back adorned by an interrupted black stripe which is widened on the fore borders of the segments: legs ferruginous; hips and thighs thinly clothed with long pale hairs; shanks and feet covered with pale down; four hinder thighs tipped with spines; claws black: wings gray, brown at the base, beneath the fore borders and along the veins; wing-ribs pitchy; veins black, pitchy at the base and along the fore border; angle of the tip cross-vein obtuse, distinct; scales gray, with darker borders; poisers tawny. Length of the body 6½ lines; of the wings 14 lines.

New Zealand.

PANGONIA ADREL, *White, Zool. Voy. Erebus and Terror.*

Fusca, pectore cano, abdomine nigro fasciculis flavis ornato, ventre fulvo, antennis pedibusque nigris, alis cinereis basi et ad costam fuscis.

Body dark brown: head pale tawny and clothed with tawny hairs in front, hoary and clothed with pale yellow hairs beneath and behind: eyes

black, thickly clothed with short black hairs, and in front and on each side with pale yellow hairs; all the facets very small: sucker black; palpi black, clothed with black hairs: feelers black; first and second joints thickly beset with long black bristles; third short, slightly convex above and beneath; compound joint rather long, not very compact, tapering and much curved upward from the base to the tip: chest clothed with short dark tawny hairs, fringed on each side with longer pale yellow hairs; breast hoary, clothed with long pale yellow hairs: abdomen black, somewhat obconical, very much broader and a little longer than the chest; a stripe composed of tufts of pale yellow hairs along the back, and a larger tuft of the like hairs on each side of the tip; under side tawny, black, and clothed with black hairs towards the tip; hind borders of the segments fringed with pale yellow hairs: legs black; hips and thighs tinged with gray, clothed with pale tawny hairs; shanks beset with very short black bristles; foot-cushions pale tawny: wings gray, mostly dark brown towards the base and beneath the fore border; wing-ribs pitchy; veins black; curve of the tip cross-vein slight; posterior submarginal areolet closed near the border; scales gray; poisers yellow. Length of the body 6 lines; of the wings 15 lines.

New Zealand.

Pangonia divisa, Fem.

Ferruginea, thorace vittis quatuor canis, abdomine piceo basi apice ventrisque segmentorum marginibus posticis ferrugineis, palpis piceis, antennis ferrugineis, pedibus fulvis, alis subcinereis fusco variis.

Body ferruginous, clothed with short tawny and black hairs, slightly covered with white bloom: head, with some cross ridges above the base of the feelers, clothed with white hairs: eyes pitchy, clothed with tawny hairs; fore part convex; all the facets small: sucker black, pitchy at the base, near thrice the length of the body: palpi pitchy, shorter than the feelers; feelers pale ferruginous; first joint about thrice the length of the second; third broad, narrow in front, twice the length of the second, forming as it were a single joint with the eight following, which are all very short and compact: chest adorned with four hoary interrupted stripes, clothed with white hairs at the base: breast clothed with white hairs: abdomen pitchy, shining, nearly elliptical, ferruginous at the base and at the tip, longer and broader than the chest: hind borders of the segments

ferruginous beneath: legs tawny; thighs clothed with black hairs; claws black; foot-cushions yellow: wings light gray; disks of the areolets pale brown: wing-ribs tawny; veins pitchy, tawny towards the base; a pitchy brand beyond the middle of the fore border; scales pale gray; poisers tawny. Length of the body 5 lines; of the wings 12 lines.

West Australia.

The posterior submarginal areolet is open in *P. inconspicua*, *gemina* and *ruficornis*; closed on the border in *P. contigua* and *Jacksonii*; closed near the border in *P. quadrimacula* and *Winthemi*; closed at some distance from the border in *P. divisa*.

Pangonia notabilis.

Fusca, capitis vitta scutelloque ferrugineis, pectore cinereo, abdomine fulvo fasciculis albis maculisque nigris ornato, antennis ferrugineis basi fulvis, palpis pedibusque fulvis, alis fuscis.

Mas. Head covered with pale tawny down, clothed beneath with hoary hairs, adorned with a slender, shining, ferruginous stripe between the eyelets and the feelers: mouth tawny; sucker black, tawny at the base; lancets ferruginous; palpi tawny, clothed with short black hairs, nearly as long as the chest: feelers ferruginous, tawny and clothed with black hairs at the base: eyes pitchy; fore part slightly convex, its facets rather larger than those elsewhere: chest brown, clothed with tawny hairs; breast gray, clothed with hoary hairs; scutcheon ferruginous: abdomen tawny, broader and much longer than the chest; third, fourth and fifth segments adorned on each side of the hind borders with tufts of white hairs; third segment with a small round black spot in the middle, and a large triangular black spot on each side of the fore border; the fourth segment has also a large triangular spot on each side; sides of the fifth segment slightly marked with black: legs tawny, clothed with short black hairs: wings brown; wing-ribs and veins pitchy; scales dark tawny; poisers tawny. Length of the body $7\frac{1}{2}$ lines; of the wings 18 lines.

South America.

PANGONIA UMBRA, Mas.

Picea, flavo hirta, abdomine nigro, maculis ferrugineis ornato, lateribus flavo nigroque fasciculatis, palpis antennisque nigris, pedibus fulvis, femoribus nigris, alis fuscis.

Body dark pitchy: head thickly clothed behind and beneath with pale yellow hairs: eyes dark pitchy; fore part black, its facets hardly larger than those elsewhere: sucker black, much shorter than the chest; lancets tawny, as long as the sucker; palpi black, shorter than the lancets: feelers black: chest clothed in front, on each side and beneath with pale yellow hairs: abdomen black, its sides furnished with alternate tufts of black and pale yellow hairs; a long ferruginous spot on each side of every segment; a broad ferruginous band on the hind border of each segment beneath: legs tawny; hips and thighs black; tips of the thighs tawny; claws black: wings dark brown; wing-ribs and veins ferruginous; veins pitchy towards the tips; scales brown; poisers tawny. Length of the body 7 lines; of the wings 18 lines.

Chili.

PANGONIA FUSIFORMIS, Fem.

Fulva, capite piceo, pectore cinereo, abdominis apice fusco lateribus albo nigroque fasciculatis, palpis fulvis, antennis ferrugineis, pedibus nigris, alis fuscis ad costam fulvis. P. translucens, *Macq.* Var.?

Body tawny, spindle-shaped: head pitchy, with a tawny tinge above; under side with a hoary tinge, and thickly clothed with hoary hairs: eyes pitchy, bare, nearly meeting on the crown; fore part rather flat, its facets a little larger than those elsewhere: sucker pitchy, not longer than the head; palpi dark tawny, curved, clothed with short black hairs, about three-fourths of the length of the sucker: feelers ferruginous; first and second joints short, beset with short black bristles; third joint broad; the the following joints so closely united with it as to seem like a single one, which is curved and pointed, and whose divisions successively increase in length and diminish in breadth: chest covered with tawny bloom: breast gray, clothed with white hairs: abdomen obconical, shining, a little broader than the chest, and nearly twice its length, pale tawny at the base, and especially on the hind borders of the first, second and third segments, brown towards the tip; sides adorned with alternate tufts of black and white hairs: legs black, clothed with short black hairs; knees and foot-

cushions dark tawny: wings brown, with a tawny tinge along the fore border; wing-ribs and veins ferruginous; scales and poisers tawny; knobs of the poisers pitchy towards the base. Length of the body 10 lines; of the wings 23 lines.

North America.

Pangonia incompleta, *Macq. Dipt. Exot.*, Suppl. I. 27, 35, Pl. 3, f. 7.

Fem. *Nigra, thoracis lateribus fulvis albo fasciculatis, pectore abdomineque fuscis, hujus lateribus basi fulvis, segmentorum marginibus posticis fulvis albo fasciculatis, antennis ferrugineis apice nigris, pedibus fulvis, tarsis piceis, alis fusco-cinereis.*

Body black, clothed with short tawny hairs: head yellowish-brown, with a dark brown disk above, hoary and clothed with yellowish-white hairs beneath: eyes pitchy-bronze, thickly clothed with tawny hairs; fore part nearly flat, all the facets very small: mouth black, a little longer than the chest; palpi tawny, rather small: feelers ferruginous; compound joint slightly curved upward, tapering to the tip, which is black: sides of the chest dark tawny; breast brown; a tuft of white hairs at the base of each wing: abdomen brown, nearly elliptical, a little broader and longer than the chest; base above and hind borders of the segments tawny, each of the latter adorned with a small tuft of white hairs: legs dark tawny, clothed with short black hairs; feet pitchy; claws black; foot-cushions pale tawny: wings gray, brown at the base and beneath the fore border, with a blackish tinge on the cross-veins; wing-ribs ferruginous; veins black, ferruginous on the tawny parts of the wing; tip cross-vein hardly forming an angle, and with no stump at the base; posterior submarginal areolet closed at some distance from the border; the middle vein which proceeds from the discoidal areolet extending only half way to the border; poisers tawny. Length of the body 4 lines; of the wings 11 lines.

Columbia.

Pangonia directa, Fem.

Nigra, abdominis lateribus basi et segmentorum marginibus posticis fulvis, antennis pedibusque nigris, tibiis basi fulvis, alis subcinereis.

Body black, clothed with short tawny hairs: head clothed beneath with long pale yellow hairs: eyes black, bare; fore part nearly flat, its facets a little larger than those elsewhere: mouth black, a little shorter

than the chest; palpi black: feelers black; compound joint rather short, spindle-shaped for most of its length, but suddenly tapering towards the tip: abdomen elliptical, a little longer and broader than the chest; hind borders of the segments, and sides of the first and second segments, tawny: legs black; thighs thinly clothed with tawny hairs; shanks and feet clothed with short black hairs; shanks dark tawny towards the base: foot-cushions tawny: wings slightly gray; wing-ribs tawny; veins black, tawny towards the base; tip cross-vein almost straight, having only a very slight downward curve along most of the length; posterior submarginal areolet very open to the border; poisers black. Length of the body $4\frac{1}{2}$ lines; of the wings 9 lines.

Cape.

TABANUS, *Linn.*

The study of these insects is connected with that of quadrupeds, and comprises a knowledge of the distribution, introduction, diffusion, diminution and extinction of the Ruminants and of some other groups. The species of Tabanus are generally local, but as a genus it extends nearly over the world, and both the reindeer and the camel are its prey. In many regions it has not as yet been observed, and consequently its geography and the relative proportion of species in the various continents and islands is comparatively unknown. Some parts of the structure are very variable in form, especially the third joint of the feelers and the tip cross-vein which divides the submarginal areolets: these variations are too numerous and too gradual to be regarded as characters of groups or of subgenera, but their succession and limits may be exhibited by a tabular series of the species, or by means of curved lines in diagrams. The third joint of the feelers in some species is slightly convex above, in others it is armed with a long horn, and no link is wanting between these two forms. The fourth and following joints form a compound joint which varies much in length, and is either straight or curved upward, stout or slender. A curve near the base of the tip cross-vein has very frequently a tendency to assume an angular form, which is very rarely a right angle, but generally more or less obtuse. It is often accompanied by the stump of a vein, which is long in proportion as the angle whence it springs is more distinct and less obtuse, or, in other words, the two veins incline more or less to be blended into one. In New Holland and New Zealand

there are species which unite Tabanus and Pangonia, and several kinds which have been separated from Tabanus are but aberrant, or the last links of its variations.

European Species.

TABANUS SOLSTITIALIS, Var.? Mas.

Cinereus, capite antico fulvo, pectore cano, abdomine nigro-piceo, lateribus basi et segmentorum marginibus posticis fulvis, antennis ferrugineis basi fulvis, pedibus cinereis, tarsis ferrugineis, tarsis anticis nigris, alis subcinereis basi et ad costam fulvis.

Body gray: head tawny in front, hoary behind and beneath, where it is clothed with white hairs: eyes dark bronze; all the facets very small: sucker black; palpi yellow, clothed towards the base with long white hairs, towards the tips with short black hairs: feelers ferruginous; first and second joints tawny, clothed with short black hairs; third joined, armed with an angular hump, but with no horn: compound joint pitchy, very slightly curved: chest thinly clothed with tawny hairs: breast hoary, clothed with pale yellow hairs: abdomen pitchy-black, obconical, much longer than the chest, clothed with yellow hairs which are mostly along the sides; a broad tawny stripe on each side from the base to the middle; hind borders of the segments tawny; under side covered with yellowish gray, clothed towards the tip with a few black hairs: legs gray, clothed with pale yellow hairs; trochanters ferruginous; shanks and feet clothed with short black hairs; shanks and foot-cushions tawny; feet ferruginous with pitchy tips; fore-shanks towards the tips, fore-feet and claws black: wings pale gray, tawny at the base and along the fore border as far as the brand, which is yellowish brown; wing-ribs tawny; veins black, tawny towards the base and along the fore border; angle of the tip cross-vein obtuse, and in one wing of the specimen described sending forth a short stump; scales grayish tawny, with ferruginous borders; poisers tawny. Length of the body 6 lines; of the wings 12 lines.

Sicily.

TABANUS INFUSUS, Fem.

Cinereo-fulvus, abdomine ferrugineo apice nigro, segmentorum marginibus fulvis, antennis rufis apice nigris, pedibus fulvis, femoribus cinereis, tibiis apice tarsisque piceis, tibiis anticis apice tarsisque anticis nigris, alis subcinereis, basi costa nervorumque marginibus fulvis.

Head adorned with a tawny covering, clothed in front and beneath with pale tawny hairs; a slight black ridge on the crown: eyes bronzed, parted by a moderate interval; sucker black; palpi yellow, clothed with pale yellow hairs; feelers red; *third joint convex beneath, armed above with a moderately long horn which forms an acute angle, and is clothed with short black hairs;* compound joint black, tapering, *nearly straight, more than half the length of the third joint:* chest grayish-tawny, clothed with short tawny hairs: breast gray, clothed with longer and paler hairs: abdomen ferruginous, obconical, very much longer than the chest, black towards the tip, clothed with tawny hairs; hind borders of the segments pale tawny: legs tawny, clothed with pale tawny hairs; thighs gray; feet and tips of the shanks pitchy; feet clothed with very short black hairs; fore-feet and tips of fore-shanks black; claws black, tawny at the base: wings pale gray, tawny at the base and beneath the fore border and along some of the veins in the disk; *curve of the tip cross-vein very near the base;* scales tawny; poisers pitchy, with tawny knobs. Length of the body 9½ lines; of the wings 18 lines.

Albania.

American Species.

TABANUS MUTATUS, Fem.

Niger fulvo tectus, capite subtus flavo hirto, pectore subcano, abdomine ferrugineo vittis una fulva duabusque nigris ornato, antennis ferrugineis basi fulvis apice nigris, pedibus fulvis, femoribus tarsis anticis tibiis tarsisque apice nigris, alis sublimpidis basi et ad costam fulvis.

Body black; head covered with tawny bloom above, adorned with pale yellow bloom, and thickly clothed with pale yellow hairs beneath: eyes brassy-black, parted by a moderately broad interval on the crown; all the facets very small, but the facets of the inner fore part rather larger than those elsewhere: sucker black; lancets dark ferruginous; palpi pale

tawny, clothed with short yellow and black hairs: feelers bright pale ferruginous; first and second joints tawny, clothed with short black hairs; *third joint convex beneath, armed above with an extremely short horn whose tip is black; compound joint black, slightly curved upward:* chest tinged with dull pale tawny, clothed on each side with bright tawny hairs: breast with a hoary tinge: abdomen ferruginous, obconical, very much longer than the chest, clothed with short tawny and black hairs, adorned with a tawny middle stripe which widens on the hind border of each segment, and is accompanied on each side by a black stripe; the latter widens towards the tip, where it occupies the whole breadth; under side tawny, with a black tip: legs tawny, clothed with short tawny hairs; thighs black, with tawny tips; tips of four hinder shanks, fore shanks for half the length from the tips, four hinder feet towards the tips and fore-feet black; foot-cushions tawny: wings hardly tinged with gray, tawny at the base and along the fore borders for three-fourths of the length; brands yellowish-brown; wing-ribs tawny; veins black, tawny towards the base; *a curve but no angle nor stump near the base of the tip cross-vein;* scales grayish tawny, with tawny borders; poisers tawny, with pale yellow knobs. Length of the body 8 lines; of the wings 14 lines.

United States.

Tabanus conterminus, Fem.

Cinereus, pectore cano, abdomine fulvo vittis duabus piceis unaque cana vittam piceam includente ornato, antennis ferrugineis basi fulvis apice nigris, pedibus fulvis piceo variis, femoribus cinereis, tarsis anticis nigris, alis limpidis.

Crown adorned with a pale dull tawny covering, which is interrupted by a round, convex, pitchy, shining spot in front; under side of the head white, and clothed with white hairs: eyes bronzed, parted above by a rather broad interval; the facets as usual: sucker pitchy; lancets ferruginous; palpi yellowish-white, clothed with very short black hairs: feelers ferruginous; first and second joints tawny, clothed with short black hairs; *third joint slightly convex beneath, armed above with a shallow right angle whose hind side is twice the length of its fore side, the latter forms a very obtuse angle with the continuation of the third joint to the tip; compound joint black, curved upward, as long as the third joint:* chest gray, clothed with short hoary hairs: breast hoary, clothed with white hairs: abdomen

tawny, obconical, a little narrower and very much longer than the chest, adorned above with three pitchy stripes, of which the side pair are interrupted and indistinct towards the base, and the middle one is inlaid with a hoary stripe; tip gray: legs tawny, clothed with short pale yellow hairs; thighs gray with tawny tips; middle-feet and fore-shanks pitchy, the latter tawny at the base; hind feet and sometimes the tips of the four hinder shanks pitchy; claws and fore-feet black: wings colourless; wing-ribs and veins tawny, the latter black towards the tips; brands pale brown; *curve of the tip cross-vein slight, not angular;* scales and poisers tawny. Length of the body $5\frac{1}{2}$—$6\frac{1}{2}$ lines; of the wings 11—13 lines.

United States.

TABANUS ERYTHROTELUS, Plate 2, fig. 1.

Fem. *Nigro-cinereus, thoraci vittis quatuor ferrugineis, pectore cano, abdomine fasciculis albis quinque vittato, segmentorum marginibus posticis fulvis, antennis nigris basi fulvis, pedibus nigris, tibiis basi fulvis, alis cinereis basi fulvis, nervis transversis fusco nebulosis.*

Body black, tinged with gray: head adorned with a hoary covering, clothed beneath with white hairs; three shining convex marks on the crown: eyes black, parted above by a rather broad interval; all the facets very small: sucker black; lancets pale ferruginous; palpi tawny, clothed with short black hairs: feelers black; first and second joints dark tawny, clothed with black hairs, produced above into short horns, the first stout, the second very slender; *third joint armed above with a short stout horn, convex beneath*, dark tawny at the base; *compound joint very much curved upward:* chest adorned with four ferruginous stripes, two on each side; breast hoary, clothed with white hairs: abdomen slightly obconical, a little broader and much longer than the chest, adorned above with five interrupted stripes composed of patches of white hairs; hind borders of the segments pale tawny: legs black, clothed with whitish hairs; shanks towards the tips and feet clothed with short black hairs; shanks tawny towards the base; foot-cushions pale tawny: wings gray, dark tawny at the base; cross-veins clouded with dark brown; brands pale brown, extremely small; wing-ribs ferruginous; veins black, ferruginous at the base; *a slight curve but no angle nor stump near the base of the tip cross-vein;* scales gray, with dark tawny borders; poisers pitchy, with tawny tips. Length of the body $8\frac{1}{2}$ lines; of the wings 17 lines.

Bolton.

Tabanus rufofrator, Fem.

Cinereo-rufus, abdominis maculis trigonis et segmentorum marginibus posticis fulvis, palpis antennisque fulvis, his apice nigris, pedibus ferrugineis, tarsis piceis, alis sublimpidis, nervis transversis fusco subnebulosis.

Body dull red: head tinged with gray, clothed beneath with white hairs; two shining convex marks on the crown, the first spindle-shaped, the second round: eyes dark bronze, parted above by a rather broad interval, composed of very small facets, which, however, are a little larger on the inner fore border than elsewhere: sucker black, rather long and stout; palpi tawny, long, clothed with very short black hairs: feelers dark tawny; first and second joints clothed with short black hairs, their tips lengthened above into short horns, the first stout, the second slender; third joint black towards the tip, *convex beneath, forming above a slight angle* which is beset with short black hairs; compound joint black, slightly curved upward: breast tinged with gray, partly clothed with whitish hairs: abdomen obconical, much longer than the chest, thinly clothed with whitish hairs on each side, and along the pale tawny hind border of each segment; a tawny stripe above, forming on each segment a triangle whose base rests on the hind border; under side pale red: legs ferruginous, clothed with short whitish hairs; shanks towards the tips and feet clothed with short black hairs; feet pitchy, dark ferruginous beneath; claws and fore-feet black; foot-cushions tawny: wings almost colourless; cross-veins very slightly clouded with brown: wing-ribs ferruginous; veins black, ferruginous at the base and along the fore border; *a curve near the base of the tip cross-vein, no angle nor stump;* scales grayish tawny, with dark tawny borders; poisers ferruginous. Length of the body 8½ lines; of the wings 17 lines.

Georgia.

Tabanus incisus, Fem.

Nigro-cinereus, capite fulvescenti, thorace vittis quatuor canis ornato, lateribus ferrugineis, pectore cano, abdominis lateribus ventreque fulvis, antennis fulvis apice nigris, pedibus nigris, tibiis basi fulvis, alis subcinereis.

Body black: head adorned with a pale tawny covering; two pitchy, shining, convex marks on the crown, one spindle-shaped, the other in front, nearly round: eyes pitchy, parted above by a rather broad interval:

sucker black, rather short; lancets ferruginous; palpi pale yellow, clothed towards the tips with very short black hairs: feelers black; first and second joints tawny; third tawny at the base beneath, where it is slightly convex, forming a shallow obtuse angle whose inner side is slightly convex and much shorter than its slightly concave outer side; compound joint very slightly curved upward, much shorter than the third joint: chest grayish black, adorned with four hoary stripes; sides slightly ferruginous; breast hoary, partly clothed with hoary hairs: abdomen tawny, slightly obconical, a little broader than the chest, and nearly twice its length, adorned above with a very broad black stripe which widens towards the hind border of each segment, and includes a very slender, indistinct, interrupted pale tawny stripe; tip black: legs black; shanks towards the base and knees tawny; foot-cushions pale tawny: wings very slightly gray; wing-ribs tawny; veins black, tawny towards the base; curve of the tip cross-vein inclining to an obtuse angle. Length of the body 6 lines; of the wings 12 lines.

Cape Breton.

Tabanus scutellaris, Fem.

Cinereus, thorace subvittato, lateribus ventre abdominisque segmentorum marginibus posticis fulvis, pectore cano, scutelli apice ferrugineo, abdominis dorso piceo vitta una cana duabusque fulvis ornato, palpis albis, antennis ferrugineis, basi pedibusque fulvis, alis subcinereis.

Body gray: head pitchy above, covered by a yellowish-brown bloom, with the exception of a shining convexity above the base of the feelers: eyes black, parted above by a broad interval; all the facets very small: sucker black; lancets ferruginous; palpi white, thinly clothed with short black hairs: feelers tawny; first and second joints clothed with very short black hairs; third joint ferruginous, *armed with a very short obtuse horn*: chest gray, with indistinct darker stripes, tawny on each side; breast hoary; tip of the scutcheon ferruginous: abdomen pitchy, slightly obconical, a little broader and very much longer than the chest, adorned with a slender, hoary, middle stripe, which ceases on the tawny hind border of each segment; on each side there is a tawny stripe which is broad near the base, but diminishes from thence towards the tip, which it does not attain; under side tawny with the exception of a pitchy middle stripe towards the base, and two pitchy side-stripes towards the tip: legs tawny, clothed with

short yellow hairs; shanks and feet clothed also with very short black hairs; feet ferruginous, tawny at the base; claws black; foot-cushions tawny: wings slightly tinged with gray; wing-ribs tawny; veins black, tawny towards the base and along the fore border; *a curve near the base of the tip cross-vein, but no angle nor stump;* scales pale gray, with tawny borders; poisers tawny, with bright pale yellow knobs. Length of the body 6 lines; of the wings 12 lines.

Bolton, North America.

Tabanus obliquus, Fem.

Fulvus, abdominis apice obscuriore, palpis antennis pedibusque fulvis, alis cinereis, nervis transversis fusco nebulosis.

Body tawny: head clothed beneath with tawny hairs: eyes dark bronze, parted above by a very narrow interval; facets very small, but larger on the fore border than elsewhere: sucker dark tawny, with a pitchy tip, clothed with tawny hairs, not much shorter than the chest, a character among others in which this species approaches Pangonia; palpi tawny, clothed with short black hairs: feelers tawny: *horn of the third joint acute, extremely short;* compound joint ferruginous: abdomen nearly linear, darker towards the tip, a little broader than the chest, and nearly twice its length; sides of the segments impressed with oblique rows of little punctures; legs tawny, clothed with short black hairs; claws black: wings dark gray, with a dark tawny tinge at the base and beneath the fore border; cross-veins clouded with brown; wing-ribs and veins dark tawny, the latter partly black; brand pitchy, narrow, slightly oblique; *a curve near the base of the tip cross-vein but no angle nor stump;* a small almost colourless spot on each wing beneath the tip cross-vein; scales gray, with dark tawny borders; poisers tawny, with pale yellow tips. Length of the body $5\frac{1}{2}$ lines; of the wings 12 lines.

Jamaica.

Tabanus tinctus, Fem.

Cinereus, thorace vittis duabus canis maculisque duabus fulvis ornato, pectore cano, abdomine fulvo, fasciis piceis ornato maculisque trigonis canis trivittato, ventre cinereo vitta picea ornato, antennis nigris basi fulvis, pedibus nigris, tibiis fulvis, alis cinereis basi et ad costam subfulvis.

Body gray: covering of the head dull tawny above, white beneath where it is clothed with white hairs; a slender, shining, pitchy stripe on the crown: eyes dark bronze, parted above by a moderately broad interval; all the facets very small: sucker black; lancets pale ferruginous; palpi pale yellow: feelers black; first and second joints dark tawny, clothed with short black hairs, their tips angular; third joint ferruginous at the base, convex beneath, *raised above into a slightly obtuse angle; compound joint very slightly curved upward:* chest adorned with two hoary stripes; a tawny spot on each side near the base of the wing, between which and the fore border of the chest there are a few black hairs: breast hoary, partly clothed with whitish hairs: abdomen dull tawny, slightly obconical, clothed with short tawny hairs, a little broader and very much longer than the chest; a broad pitchy band on the fore border of each segment from the third to the tip, which is black; segments from the third to the sixth adorned with three rows of hoary triangular spots which rest on the hind borders; under side gray with a broad pitchy stripe; hind borders of the segments pale tawny: legs black; hips and thighs tinged with gray, clothed with short whitish hairs; shanks tawny with black tips, fringed with short black hairs; foot-cushions pale tawny: wings gray, with a tawny tinge at the base and along the fore border as far as the brand, which is brown; wing-ribs ferruginous; veins black, ferruginous at the base and along the fore border; *curve of the tip cross-vein very slight;* scales gray, with tawny borders; poisers pitchy, with tawny knobs. Length of the body 11½ lines; of the wings 21 lines.

St. Thomas?

Tabanus ferrifer, Fem.

Ferrugineus, capite flavo, vertice thoracisque vittis quatuor fulvis, pectore cano, abdomine nigro-fusco, dorso maculis fulvis trivittato, lateribus basi ventrisque segmentorum marginibus posticis fulvis, antennis ferrugineis basi fulvis apice nigris, pedibus fulvis, tibiis ferrugineis, tarsis piceis, alis cinereis, basi venarumque marginibus subfuscis.

Body with a dark ferruginous covering: head dark tawny above, pale yellow in front and beneath where it is clothed with whitish hairs; a long club-shaped ferruginous mark on the crown: eyes dark bronze, parted above by a moderately broad interval; all the facets very small: sucker pitchy; lancets ferruginous; palpi pale yellow, clothed with short black hairs: feelers long, dark ferruginous; first and second joints tawny, clothed with short black hairs; tip of the first joint produced above into a long conical horn with a black tip; tip of the second joint forming an acute angle on each side; *horn of the third joint short, stout; compound joint black, very slightly curved upward:* chest adorned with four indistinct dark tawny stripes: breast hoary, clothed with whitish hairs: abdomen dark brown, obconical, very much longer than the chest, tawny on each side at the base, adorned above with three rows of pale tawny spots; middle row shorter and less distinct than the side pair; a bright tawny band on the hind border of each ventral segment; legs tawny, clothed with short yellow hairs; shanks and feet clothed with short black hairs; shanks ferruginous; feet pitchy; claws and fore-feet black; foot-cushions tawny: wings gray, slightly brown at the base and along the borders of the veins; brands brown; wing-ribs ferruginous; veins black, here and there ferruginous; *a curve, which especially is clouded with brown, near the base of the tip cross-vein; no angle nor stump;* scales tawny; poisers yellow, with whitish tips. Length of the body 10 lines; of the wings 20 lines.

Barbadoes?

Tabanus submacula, Plate 2, fig. 8.

Fem. *Nigro-cinereus, thoracis vittis duabus pectoreque canis, lateribus ferrugineis, abdomine fasciculis albis ornato, antennis pedibusque nigris, alis cinereis fusco maculatis basi et ad costam fulvis.*

Allied to Pangonia. Body black: covering of the head dark tawny above, hoary beneath where it is thickly clothed with long white hairs; a

club-shaped, shining, pitchy ridge on the fore-crown: eyes bronze, parted above by a rather broad interval; facets very small, but slightly increasing in size towards the inner fore part: sucker black, stout; lancets bright pale ferruginous; palpi dark tawny, thickly clothed with very short black hairs: feelers black, long; first and second joints clothed with black hairs; *third joint convex beneath, its horn very long, much curved downward; compound joint long, hardly curved upward:* chest grayish-black, dark ferruginous and tinged with hoary on each side, adorned with two slender hoary stripes: breast hoary, partly clothed with whitish hairs: abdomen slightly obconical, finely punctured, clothed with short black hairs, longer than the chest; a patch of white hairs on each side of the first and second segments, and another patch on the hind border of the fourth segment; under side adorned with a patch of white hairs on each side of the hind border of every segment: legs black, clothed with short black hairs; foot-cushions tawny: wings gray, tawny at the base and along the fore border as far as the brand, which is dark brown; a large brown spot below the brand clouds also the borders of the veins in the disk; wing-ribs ferruginous; veins black, ferruginous towards the base and along the fore border; angle of the tip *cross-vein distinct, slightly obtuse, sending forth a short stump;* (in one wing of the insect described the angle is slightly rounded and has no stump) scales gray, with ferruginous borders; poisers pitchy, with tawny tips. Length of the body 7½ lines; of the wings 16 lines.

Columbia.

Tabanus detersus, Fem.

Niger, thoracis lateribus pectore ventris vittis duabus et segmentorum marginibus posticis ferrugineis, antennis ferrugineis apice nigris, pedibus ferrugineis, tarsis anticis piceis, alis cinereis.

Body black: head tawny in front, clothed beneath with hoary hairs: eyes bronzed; the facets as usual: sucker black; lancets and palpi ferruginous. feelers dark ferruginous; first and second joints clothed with short black hairs; *third slightly convex beneath, forming above a shallow and extremely obtuse angle, whose fore side extends to the tip and is twice the length of the hind side; compound joint black, slightly curved upward, much shorter than the third joint:* breast and sides of the chest ferruginous, with a hoary tinge: abdomen linear, conical at the tip, much longer than the chest; hind borders of the segments and a broad stripe on each side beneath dark ferruginous: legs ferruginous: fore-feet and tips of the other

feet pitchy; claws black; wings gray; brands brown; wing-ribs ferruginous; veins black, ferruginous towards the base; *angle of the tip cross-vein obtuse, sending forth a stump which is about twice the length of its shorter side;* scales gray, with pitchy borders; poisers pitchy. Length of the body $5\frac{1}{2}$ lines; of the wings 11 lines.

Columbia.

Tabanus perplexus, Fem.

Niger, capite piceo, thoracis abdominisque basi lateribus rufis, antennis rufis apice nigris, tibiis anterioribus rufis apice nigris, alis fulvis, apice margineque postico cinereo-fuscis.

Body black: head pitchy, covered with brownish tawny bloom, clothed beneath with white hairs and black bristles: eyes brassy, large, parted by a very narrow interval on the crown: sucker black; lancets pale red: palpi tawny: feelers red; first and second joints produced into short horns, the first stout and blunt, the second slender and acute; tip of the third joint black, *its horn curved downward and very long:* sides of the chest red: breast clothed with tawny hairs: abdomen shining, obconical, longer than the chest, red on each side at the base: legs black; fore- and middle-shanks red, with black tips; hind-shanks fringed with short black hairs; foot-cushions tawny: wings dark tawny, which colour passes into grayish-brown at the tips and along the hind border; wing-ribs and veins ferruginous; veins pitchy towards the tips; *tip cross-vein forming a very distinct, slightly obtuse angle near the base where there is no stump;* scales dark tawny; poisers pitchy, with ferruginous knobs. Length of the body 7 lines; of the wings 22 lines.

Columbia.

Tabanus basi-rufus, Fem.

Niger, capite rufo maculato subtus fulvo, scutelli margine postico abdominisque basi rufis, antennis basi ferrugineis, pedibus rufis, alis cinereis ad costam subferrugineis.

Body black: head pitchy above, with a large red spot in front of the crown, dark tawny, and thickly clothed with long pale yellow hairs in front and beneath: eyes brassy, clothed with tawny hairs, parted by a moderately broad interval on the crown, which is clothed with short black

hairs: sucker black, clothed with short tawny hairs; lancets ferruginous; palpi tawny, rather large: feelers black, first joint ferruginous, armed with a short horn; *horn of the third joint long, curved downward:* chest and breast clothed with tawny hairs, which are most thick on the breast; hind border of the scutcheon red: abdomen nearly obconical, a little broader and longer than the chest, red towards the base: legs dark red; feet pitchy; claws black: foot-cushions tawny; hind-shanks fringed with short black hairs: wings gray, with a ferruginous tinge at the base and along the fore border for most of the length; cross-veins slightly clouded with brown; *tip cross-vein forming a distinct obtuse angle near the base where there is no stump;* wing-ribs ferruginous; veins black, ferruginous at the base and along part of the fore border; scales blackish; poisers tawny. Length of the body 7½ lines; of the wings 17 lines.

Columbia.

Tabanus hirtitibia, Fem.

Niger, thoracis lateribus abdomineque ferrugineis, hujus vitta dorsali nigra, antennis basi pedibusque nigris, tibiis ferrugineis, tarsis posterioribus piceis, tibiis posticis nigro ciliatis, alis nigro-cinereis, basi costa venarumque marginibus flavo-fuscis.

Body black: head covered with yellowish brown, clothed with dull tawny hairs; a slender, shining, black ridge along the whole length of the crown: eyes dark bronze, parted above by a moderately broad interval; all the facets very small: sucker black; lancets pale ferruginous; palpi dark tawny, clothed with short black hairs: first and second joints of feelers black: chest partly ferruginous and thinly clothed with tawny hairs on each side: abdomen deep ferruginous, very slightly obconical, a little broader and much longer than the chest, adorned above with a black stripe, which is interrupted on the hind borders of the segments towards the tip; sides and hind borders of the segments clothed with short black hairs; under side paler: legs black, thickly clothed with pale yellow hairs; shanks and feet clothed with short black hairs; shanks very dark ferruginous; feet pitchy; claws and fore-feet black; foot-cushions tawny; hind-shanks fringed with rather long black hairs; wings dark gray, yellowish brown at the base and beneath the fore border and along the borders of the veins; wing-ribs ferruginous; veins black, ferruginous at the base and occasionally in the disk; *angle of the tip cross-vein very distinct, slightly obtuse, sending forth* (on one wing only of the insect described) *a short*

stump; scales dark gray; poisers tawny with yellow knobs. Length of the body 8 lines; of the wings 17 lines.

Columbia.

Tabanus adustus, Fem.

Piceus, thoracis lateribus ferrugineis, abdomine nigro-piceo, lateribus basi ferrugineis, segmentorum marginibus posticis fulvis, antennis pedibusque nigris, tibiis ferrugineis, alis subcinereis basi costa venarumque marginibus subfulvis.

Body pitchy: head above covered with tawny bloom, excepting a shining, reddish-brown, middle stripe; fore part adorned with a golden covering; under side clothed with pale yellow hairs; eyes dark bronze, parted above by a moderately broad interval; all the facets very small: sucker black; lancets ferruginous; palpi dark tawny, pitchy above: feelers black; *horn of the third joint long, slightly curved:* chest clothed with short tawny hairs, dark ferruginous on each side; breast tinged with gray, clothed with longer yellow hairs: abdomen pitchy-black, obconical, much longer than the chest, ferruginous on each side at the base; hind borders of the segments tawny: legs black, clothed with short black hairs; shanks very dark ferruginous: wings pale gray, tawny at the base and beneath the fore borders, and with a slight tawny tinge along the borders of the veins; wing-ribs and veins ferruginous, the latter black towards the tips; *a slight curve with no angle nor stump near the base of the tip cross-vein;* scales dull dark tawny; poisers ferruginous with tawny knobs. Length of the body 9 lines; of the wings 18 lines.

Columbia.

Tabanus simplex, Fem.

Niger, thoracis lateribus abdomineque ferrugineis, hujus apice piceo, antennis basi fulvis, pedibus ferrugineis, femoribus anticis tarsisque nigris, alis subcinereis, basi costa venarumque marginibus subfulvis.

Body black: head pitchy above, tawny in front, clothed beneath with whitish hairs: eyes bronze, parted by a rather broad interval on the crown; all the facets very small: sucker black; lancets ferruginous; palpi tawny: first and second joints of the feelers tawny; first joint black and projecting at the tip: sides of the chest ferruginous; breast tinged with gray,

partly clothed with pale yellow hairs: abdomen ferruginous, obconical, pitchy towards the tip, very much longer than the chest: legs ferruginous, clothed with short black hairs: feet black, dark ferruginous towards the base; foot-cushions tawny; fore-thighs black; wings pale gray, with a tawny tinge at the base and beneath the fore border and along the borders of the veins; wing-ribs ferruginous; veins black, ferruginous towards the base; *a distinct but very obtuse angle with no stump near the base of the tip cross-vein;* scales dark tawny, with pitchy borders; poisers tawny with yellow tips. Length of the body 6 lines; of the wings 13 lines.

Columbia.

Tabanus discifer, Plate 2, fig. 2.

Fem. *Nigro-cinereus, thoracis lateribus vittisque tribus ferrugineis, abdomine fasciculis albis trivittato, antennis nigris basi fulvis, pedibus nigris, alis subnigris, basi et ad costam ferrugineis, cellularum discis apicibusque cinereis.*

Body black: covering of the head dark tawny above, tawny in front and beneath where it is clothed with pale tawny hairs; a slender, shining, pitchy ridge along the whole length of the crown: eyes large, bronze, parted above by a very narrow interval; facets very small, but increasing in size towards the inner fore border: sucker black, clothed with tawny hairs; lancets pitchy; palpi dark tawny, thickly clothed with very short black hairs: feelers black, long, first and second joints dark tawny, clothed with black hairs above, with pale tawny hairs beneath; third joint dark tawny towards the base, *its horn very long, curved downward; compound joint curved upward:* chest tinged with gray, ferruginous on each side, adorned with three slender ferruginous stripes: breast tinged with grayish-tawny, partly clothed with tawny hairs: abdomen obconical, a little broader and very much longer than the chest; each side of every segment adorned with a patch of white hairs; each hinder segment having also a middle patch of more indistinct white hairs: legs black; thighs clothed with short whitish hairs; shanks and feet clothed with short black hairs; feet beneath dark ferruginous; foot-cushions pale tawny: wings blackish, dark ferruginous at the base and along the fore border as far as the brand which is black; disks of the areolets and tips gray; wing-ribs ferruginous; veins black, ferruginous towards the base and along the fore border; *curve of the tip cross-vein inclined to an angular form, no stump;* scales dark

gray with ferruginous borders; poisers pale brown, with yellowish white tips. Length of the body 10 lines; of the wings 20 lines.

Para.

Tabanus pudens, Fem.

Cinereo-fuscus, thorace vittis tribus fulvis ornato, pectore cano, abdomine fusco vittis una albida duabusque fulvis ornato, antennis rufis basi fulvis apice nigris, pedibus fulvis, femoribus cinereis, tarsis piceis, tibiis tarsisque anticis nigris, tibiis anticis basi flavis, alis subcinereis.

Head tawny above, whitish in front and beneath where it is clothed with white hairs: eyes bronzed, parted above by a moderate interval: sucker black; lancets pale ferruginous; palpi pale yellow, clothed above with short black hairs: feelers pale red; first and second joints tawny, clothed with black hairs; *third joint deep, very convex beneath, its horn forming a slightly obtuse angle which occupies the whole side;* compound joint black, slender, tapering, curved upward, *more than half the length of the third joint:* chest grayish brown, adorned with three indistinct tawny stripes; sides tawny, clothed with black hairs; breast hoary, clothed with white hairs: abdomen obconical, brown, pitchy towards the tip, much longer than the chest, adorned with three stripes; the side stripes are tawny, composed of oblique spots, and do not extend beyond the fourth segment; the middle stripe is narrow, linear, whitish, and has a tawny tinge towards the tip of the abdomen, which it nearly reaches; under side tawny, tinged with gray, adorned with pitchy bands: legs tawny, clothed with very short black hairs; thighs gray, clothed with pale hairs; tips of four hinder thighs tawny; feet pitchy; foot-cushions pale tawny; claws, fore-shanks and fore-feet black; fore-shanks pale yellow above, tawny beneath for half the length from the base: wings pale gray; wing-ribs tawny; veins black, tawny towards the base, *angle of the tip cross-vein distinct, obtuse, bearing a little knob;* scales gray, with pitchy borders; poisers tawny. Length of the body 6½ lines; of the wings 12 lines.

Rio Janeiro.

Tabanus trifascia, Mas.

Niger, thoracis lateribus fulvo unimaculatis, abdomine piceo basi ferrugineo, vitta et segmentorum marginibus posticis fulvis, antennis ferrugineis basi fulvis, pedibus nigris, tibiis fulvis, alis cinereis basi et ad costam fulvis.

Body black: head thinly clothed beneath with pale yellow hairs: eyes divided into two distinct regions; upper region dark red, composed of very large facets, occupying most of the surface; fore region small, pitchy, composed of very small facets, confined to the sides of the eyes with the exception of a narrow band along the hind border: sucker deep black; palpi yellow, clothed with pale yellow hairs, and towards the tip with black hairs: feelers pale ferruginous: first and second joints tawny, clothed with short black hairs; *third with a slight protuberance but no horn; compound joint very slightly curved:* chest and breast thinly clothed with short tawny hairs; a dark tawny spot on each side at the base of the wing: abdomen pitchy, obconical, a little narrower and very much longer than the chest, clothed with a few tawny hairs, ferruginous towards the base, adorned with a bright tawny stripe, which disappears near the base and the tip; hind borders of the segments tawny: legs black, clothed with short black hairs; shanks tawny with black tips; tips of the thighs tawny; feet tawny at the base; foot-cushions dark tawny; hind-thighs and fore-feet quite black; fore-shanks tawny for half the length from the base, black thence to the tips: wings gray, dark tawny at the base and along the fore border; wing-ribs ferruginous; veins black, ferruginous towards the base; *angle of tip cross-vein slightly obtuse, stump of moderate length;* brand yellowish brown; scales tawny; poisers pitchy. Length of the body 4½ lines; of the wings 9 lines.

Brazil.

Tabanus litigiosus, Mas et Fem.

Ferrugineus, aut fulvus, flavo varius, antennis fulvis apice piceis, pedibus fulvis, alis fuscis fulvo maculatis, marginibus posticis cinereis.

Male. Body ferruginous: head light yellow in front, clothed with pale yellow hairs beneath: eyes very large: upper region pale brassy red, composed of very large facets; fore region dark red, small, confined to the

sides of the eyes with the exception of a narrow band along the hind border: sucker ferruginous, black towards the tip; palpi tawny, and clothed with tawny hairs: feelers bright tawny; first joint yellow, clothed with yellow hairs; second clothed with black hairs; third pitchy at the tip, *its horn acute, very short:* chest thickly clothed with bright tawny hairs: breast tawny, with a hoary tinge: abdomen tawny, slightly obconical, ferfuginous towards the tip, very much longer than the chest; under side yellow with a tawny tip: legs tawny, clothed with short tawny hairs; feet pitchy towards the tips; claws black; foot-cushions yellow: wings brown, darkest at the base, gray along the hind border for half the length from the base, colourless at the tips, adorned with a large tawny spot which extends from the fore border to the disk; wing-ribs tawny; veins black, partly ferruginous; *angle of the tip cross-vein strongly marked, slightly obtuse, sending forth a rather long stump;* scales brown; poisers tawny.

Fem. Head pale tawny in front, hoary, and clothed with white hairs beneath: eyes black, parted above by a rather broad interval; all the facets very small: sucker black; lancets pale ferruginous; palpi yellow with black tips, longer than those of the male: feelers tawny, black towards the tips, darker, shorter and more curved than those of the male; they are also wider at the base, and the horn is larger: chest tawny, thinly clothed with pale tawny hairs; breast with a hoary tinge, partly clothed with white hairs: hind borders of abdominal segments yellow; under side tawny, with a hoary tinge: legs tawny, clothed with short tawny hairs; feet and fore-shanks ferruginous; fore-feet black: wings brown, gray at the tips and along the whole length of the hind border; spot much smaller and less distinct than that of the male, and more gray than tawny; stump of the tip cross-vein shorter in one wing than in the other of the specimen described.

Length of the body 6 lines; of the wings 12 lines.

South America.

Tabanus subsenex, Mas.

Piceus, capite cano, thoracis lateribus ferrugineis, abdomine rufo-fusco vittis tribus fulvis ornato, antennis ferrugineis basi fulvis apice nigris, pedibus fulvis ferrugineo nigroque variis, alis cinereis basi et ad costam fulvis.

Head hoary and clothed with white hairs in front and beneath: eyes dark red, not divided into two regions, but the facets above are of moderate

size, and larger than those elsewhere: sucker black; palpi pale yellow, clothed with short black hairs: feelers ferruginous, clothed with short black hairs; first joint tawny; *third armed with a very short acute tooth, whose tip is black;* compound joint black towards the tip: chest pitchy, thinly clothed with tawny hairs, ferruginous on each side, where it is also clothed with black hairs: abdomen obconical, dark reddish brown, a little longer and narrower than the chest, clothed on each side with tawny hairs, adorned with three tawny stripes which are also clothed with tawny hairs: the middle stripe is partly brown, and more distinct than the side pair; under side tawny, with a hoary tinge, black towards the tip, and having a broad black middle stripe along the first and second segments: legs tawny, clothed with short black hairs; thighs black towards the base, clothed with white hairs; feet and fore-shanks ferruginous, with black tips; fore-feet and hind-thighs black, tips of the latter tawny; foot-cushions tawny: wings gray, dark tawny at the base and along three-fourths of the length of the fore border; wing-ribs and veins ferruginous, the latter black towards the tips; *angle of the tip cross-vein obtuse, not very distinct, bearing a knob, or indication of a stump;* scales ferruginous; poisers tawny, with yellow knobs. Length of the body 6 lines; of the wings 12 lines.

South America.

Tabanus dorsivitta, Fem.

Cinereo-ferrugineus, thoracis vittis tribus lateribus pectoreque canis, abdomine flavo-fusco, vitta dorsali et segmentorum marginibus posticis subtus pallidioribus, antennis basi pedibusque fulvis, femoribus cinereis, tarsis piceis, tarsis anticis nigris, alis subcinereis basi et ad costam subfulvis.

Body dull ferruginous: covering of the head dark brown above, pale tawny beneath where it is clothed with pale yellow hairs: crown adorned with a pitchy, shining, club-shaped ridge which is tawny in front: eyes brassy, parted above by a moderately broad interval; facets very small, but slightly increasing in size towards the inner fore border: sucker black; palpi pale tawny, clothed with very short black hairs; first and second joints of the feelers tawny, clothed with short black hairs, tip of the first above, of the second above and beneath lengthened, angular: chest tinged with gray, adorned with three hoary stripes; sides and breast hoary, the latter partly clothed with whitish hairs; abdomen yellowish brown, obco-

nical, longer than the chest, clothed with short tawny and black hairs, hoary towards the base, adorned above with a pale tawny middle stripe, which decreases towards the tip; hind borders of the ventral segments and nearly the whole of them towards the tip tawny: legs tawny; hips and thighs gray, clothed with pale yellow hairs; shanks fringed with black hairs; feet pitchy; claws black; foot-cushions tawny; fore-feet black: wings very pale gray, with a slight tawny tinge at the base and along the fore border as far as the brand, which is pale yellow; wing-ribs ferruginous; veins black, ferruginous towards the base and along the fore border; *curve of the tip cross-vein inclining to an angular form, no stump;* scales gray, with tawny borders; poisers tawny, their knobs brown with pale yellow tips. Length of the body 7 lines; of the wings 14 lines.

South America?

Tabanus ferruginosus, Fem.

Ferrugineus, abdomine maculis trigonis fulvis vittato, segmentorum marginibus posticis fulvis, antennis ferrugineis apice nigris, pedibus fulvis, tibiis anticis apice tarsisque piceis, tarsis anticis nigris, alis cinereis ad costam fulvis.

An aberrant species. Body ferruginous: covering of the head dark tawny above, hoary beneath where it is clothed with hoary hairs: eyes brassy, parted above by a narrow interval; facets very small, but slightly increasing in size towards the inner fore border: sucker black; lancets pale ferruginous; palpi dark tawny, long, slender, clothed with short black hairs: feelers ferruginous; first and second joints clothed with short black hairs; *third joint hardly angular above, slightly convex beneath*, darker towards the tip; compound joint black, *very slightly curved upward, much shorter than the third joint:* chest paler on each side; breast with a hoary tinge, partly clothed with white hairs: abdomen linear, rounded towards the tip, a little broader and very much longer than the chest, adorned with a stripe of tawny triangular spots, these rest on the hind borders of the segments, which are also tawny; a hoary tinge towards the base of the under side: legs tawny, clothed with short black hairs; thighs clothed with short pale tawny hairs; feet and tips of the fore shanks pitchy, claws and fore-feet black: wings gray, dark tawny beneath the fore border; brands brown; wing-ribs pitchy; veins black; *angle of the tip cross-vein very distinct, very slightly obtuse, sending forth a long stump;* scales gray,

with ferruginous borders; poisers tawny, with pitchy knobs. Length of the body 5½ lines; of the wings 12 lines.

South America.

Tabanus terminatus, Fem.

Cinereo-ferrugineus, thoracis vittis tribus pectore abdominisque vitta canis, antennis ferrugineis basi fulvis apice nigris, pedibus ferrugineis, tarsis piceis, alis subcinereis.

Body dull ferruginous, slightly tinged with gray: covering of the head tawny above, whitish in front and beneath where it is clothed with white hairs: eyes dark bronze, parted above by a moderate interval; facets very small, but slightly increasing in size towards the inner fore border: sucker black; lancets pale ferruginous; palpi pale yellow, rather long, clothed towards the tips with very short black hairs; feelers ferruginous; first and second joints tawny, thinly clothed with short black hairs; *third joint slightly convex beneath, forming an obtuse angle above, not horned; compound joint black, slightly curved upward:* chest adorned with three hoary stripes: breast hoary, partly clothed with white hairs: abdomen obconical, very much longer than the chest, adorned with a hoary stripe, which becomes more distinct as it approaches the tip: legs dull pale ferruginous; thighs clothed with white hairs: shanks and feet clothed with very short black hairs; feet pitchy; foot-cushions yellow; claws and fore-feet black: wings pale gray; wing-ribs ferruginous; veins black, ferruginous at the base and along the fore borders; *curve of tip cross-vein very slight, no angle nor stump;* scales pale gray, with tawny borders; poisers tawny, with pale yellow tips. Length of the body 8 lines; of the wings 16 lines.

South America?

Tabanus manifestus, Fem.

Fulvus, abdominis dorso picco vittis tribus fulvis ornato, palpis flavis, antennis ferrugineis basi fulvis apice nigris, pedibus fulvis, femoribus cinereis, tibiis apice tarsisque piceis, tibiis anticis apice tarsisque anticis nigris, alis limpidis.

Body tawny, clothed with short tawny hairs: head paler beneath; two black, shining, convex marks on the crown, the first spindle-shaped,

the other round: eyes brassy, parted above by a rather broad interval; all the facets very small: sucker black; lancets pale ferruginous; palpi yellow, clothed towards the tips with very short black hairs: feelers pale ferruginous: first and second joints tawny, clothed with short black hairs: *third joint angular above, very slightly convex beneath;* compound joint black, rather long, very slightly curved upward: abdomen pitchy, slightly obconical, longer and a little broader than the chest, adorned with three pale tawny stripes; the middle stripe distinct and linear, the side pair irregular and less distinct; under side tawny: legs tawny; thighs gray, clothed with pale tawny hairs; feet and tips of shanks pitchy; feet beneath and foot-cushions ferruginous; claws, fore-shanks from the middle to the tips, and fore-feet black: wings colourless; wing-ribs tawny; veins black, tawny towards the base and along the fore border; *a curve but no angle nor stump near the base of the tip cross-vein;* scales almost colourless, with tawny borders; poisers tawny. Length of the body 5 lines; of the wings 10 lines.

South America?

African Species.

Tabanus Noctis, Mas.

Niger, capite antico fusco, alis fusco-subnigris apice cinereis.

Body dull black, clothed with short black hairs: front of the head tinged with brown, clothed with short black hairs: eyes very large, divided into two distinct regions; hinder region black, occupying the whole upper surface, its facets very large, but gradually decreasing in size towards the hind border; fore region coppery, much larger than that of *T. atratus*, separated from the other by a straight line, composed of very small facets: sucker, palpi and feelers black: *angle of the third feeler-joint very shallow:* legs black, clothed with short black hairs; foot-cushions dark tawny: wings blackish, darkest beneath the fore border at three-fourths of the length, gray towards the tips; a yellowish brown tinge at the base and along the borders of the veins; wing-ribs, veins and poisers black; *veins like those of T. atratus;* scales blackish, fringed with short dark tawny hairs. Length of the body 8 lines; of the wings 18 lines.

Cape.

TABANUS PERVASUS, Fem.

Piceus, capite antico fulvo, thorace pectoreque rufo-fuscis, illius vittis tribus obscurioribus, abdomine glaucescente, antennis pedibusque nigris, tarsis intermediis basi tibiisque ferrugineis, alis cinereis, basi costa venarumque marginibus fuscis.

Body pitchy: head covered above with brown down, dark tawny and clothed with tawny hairs in front: eyes brassy, large, separated by a very narrow interval on the crown; all the facets very small: sucker black; palpi dark tawny: feelers black; first joint very oblique at the tip; *horn of the third joint short:* chest and breast dark reddish brown: chest with three slender indistinct darker stripes: abdomen obconical, covered with a bluish gray bloom, much longer than the chest: legs black; shanks ferruginous, with black tips; hind-shanks fringed with short black hairs; middle-feet ferruginous at the base; foot-cushions tawny: wings gray, brown at the base and along the fore borders till near the tips, and on the borders of the veins in the disk; scales blackish; poisers pitchy with pale yellow knobs; *tip cross-vein forming an obtuse angle, without a stump near the base.* Length of the body 9 lines; of the wings 22 lines.

West Africa.

TABANUS DIURNUS, Fem.

Niger fulvo tectus, abdomine pilis fulvis trivittato, antennis ferrugineis basi fulvis, pedibus fulvis, tarsis piceis, tibiis anticis apice tarsisque anticis nigris, alis limpidis.

Body black: head tinged with tawny, hoary behind and beneath where it is clothed with yellow hairs: eyes red, parted above by a moderately broad interval, brightest in front; all the facets very small: sucker black; lancets tawny; palpi whitish yellow, clothed with pale yellow hairs, and with very few short black hairs: feelers bright pale ferruginous; first and second joint tawny, clothed with short yellow and black hairs; *an angle beset with a few very short black bristles near the base of the third joint:* chest and breast adorned with a grayish tawny covering, clothed on each side with yellow hairs: abdomen slightly obconical, much longer than the chest, clothed with bright pale tawny hairs which form three indistinct stripes on the back, and are most prevalent on each side; under side with

a dull tawny covering: legs tawny, clothed with short yellow hairs; hips and thighs black with a tawny tinge; shanks and feet clothed with short black hairs; tips of hind shanks pitchy; claws, fore-shanks from the middle to the tips and fore-feet black; four hinder feet pitchy, tawny at the base; foot-cushions dull tawny: wings colourless; brands dark tawny: wing-ribs and veins tawny, the latter pitchy towards the tips; *a nearly right angle with a long stump near the base of the tip cross-vein;* scales pale tawny; poisers whitish yellow. Length of the body 7 lines; of the wings 12 lines.

Cape.

Tabanus albipalpus, Fem.

Nigro-cinereus, capitis vertice thoracisque lateribus fulvo maculatis, abdominis lateribus basi fulvis, segmentorum marginibus posticis ferrugineis, antennis fulvis apice ferrugineis, pedibus flavis, femoribus basi tibiis anticis apice tarsisque anticis nigris, alis limpidis.

Body grayish-black: head thinly clothed beneath with whitish hairs: a small tawny spot on the hinder crown: eyes red, parted above by a very broad interval, each adorned with an oblique dark stripe which extends from the fore inner to the hind outer border; all the facets very small: sucker dark ferruginous, very short; lancets tawny; palpi yellowish white, clothed with short white and black hairs: feelers tawny, very short; first and second joints clothed with short black hairs, each produced above into a black angle; *third joint convex above at the base, not horned;* compound joint ferruginous, *short, very slightly curved upward:* a tawny spot on each side of the chest at the base of the wings: abdomen slightly obconical, very much longer than the chest, adorned with a short tawny stripe on each side near the base; hind borders of the segments ferruginous; under side mostly gray: legs pale yellow; thighs towards the base and hips black; tips of the joints of the feet brown; claws, fore-shanks from the middle to the tips and fore-feet black: wings colourless; wing-ribs and veins tawny; angle of the tip cross-veins very obtuse, with no stump; brands very indistinct; scales colourless, with pale yellow borders; poisers whitish yellow. Length of the body 4½ lines; of the wings 9 lines.

Gambia.

Tabanus socialis, Fem.

Cinereus, pectore cano, abdomine ferrugineo, antennis basi pedibusque fulvis, alis subcinereis basi et ad costam fulvis.

Body gray: head brown above, tawny in front, clothed with white hairs beneath: eyes red, parted above by a narrow interval; all the facets very small: sucker black; lancets ferruginous; palpi yellow: feelers dark tawny at the base: a tawny tinge on each side of the chest: breast hoary: abdomen pale ferruginous, obconical, clothed with short tawny hairs, very much longer than the chest: legs tawny; feet black; foot-cushions pale tawny; hind shanks clothed with very short black hairs: wings slightly gray, tawny at the base and along three-fourths of the length of the fore border; wing-ribs ferruginous; veins black, ferruginous at the base; *a curve near the base of the tip cross-vein, but no angle nor stump;* scales dark tawny; poisers pale ferruginous. Length of the body 8 lines; of the wings 16 lines.

Cape.

Tabanus infans, Fem.

Niger, capite abdomineque cinereis, abdominis segmentorum marginibus posticis fulvis, antennis ferrugineis basi fulvis apice nigris, pedibus nigris, tibiis fulvis, alis subcinereis.

Body black, tinged with gray: head gray, with a tawny tinge in front, clothed beneath with whitish hairs, adorned above with two black, shining, convex marks, the one slender and forming a ridge, the other round: eyes brassy, parted above by a rather broad interval; all the facets very small: sucker black; lancets pale ferruginous; palpi tawny: feelers tawny; third joint ferruginous, oval, *with no horn;* compound joint black, *slightly curved upward, rather shorter than the third joint:* abdomen gray, obconical, thinly clothed with short tawny hairs, a little broader and very much longer than the chest; hind borders of the segments tawny: legs tawny, clothed with short black hairs; thighs and feet black; four hinder feet tawny towards the base; fore-shanks black towards the tips; foot-cushions dark tawny: wings slightly gray; brands brown; wing-ribs ferruginous; veins black ferruginous towards the base; *a distinct obtuse angle with no*

stump near the base of the tip cross-vein ; scales dull grayish tawny : poisers ferruginous. Length of the body 4½ lines ; of the wings 9 lines.

Cape.

Tabanus siccus, Fem.

Cinereus, abdomine rufo, palpis flavis, antennis rufis, pedibus fulvis, tarsis piceis, tibiis anticis rufis, tarsis anticis nigris, alis subcinereis.

Head adorned with a tawny covering which is interrupted by two ferruginous, shining, convex dots on the crown ; eyes red, parted above by a moderate interval : sucker pitchy ; lancets tawny ; palpi pale yellow, clothed with very short black hairs : feelers pale red ; *horn of the third joint forming a very shallow, slightly obtuse angle :* chest and breast gray, clothed with tawny hairs ; sides pale red : abdomen pale red, obconical, darker towards the tip, very much longer than the chest ; hind borders of the segments pale, and clothed with pale yellow hairs ; under side tawny : legs tawny, clothed with very short black hairs ; thighs clothed with pale yellow hairs ; feet pitchy ; claws and fore-feet black ; fore-shanks pale red : wings pale gray ; wing-ribs and veins tawny ; *tip cross-vein forming a distinct, slightly obtuse angle, and sending forth a stump which is rather longer than its inner side ;* scales pale gray, with tawny borders. Length of the body 6½ lines ; of the wings 12 lines.

Egypt.

Asiatic Species.

Tabanus albulus, Mas et Fem.

Canus, abdomine fusco-fulvo lateribus flavo maculatis (fem. *dorso cinereo*), *antennis fulvis basi flavis, pedibus fulvis, alis albidis.*

Male. Body hoary ; head yellow in front, whitish and clothed with white hairs beneath : eyes of two regions and colours, the one pale red of large facets, the other bronze-black, occupying the sides and extending in a narrow band along the hind border : sucker pale ferruginous; lancets tawny ; palpi whitish, clothed with white hairs : feelers tawny ; first and second joints yellow ; *third slightly convex beneath, the angle above extremely shallow and obtuse, its fore side much more than twice the length of the hind*

side ; compound joint slightly curved upward, much shorter than the third joint : chest clothed with short pale yellow hairs ; breast thinly clothed with short white hairs : abdomen tawny, obconical, a little narrower and much longer than the chest ; under side tinged with whitish colour ; tip ferruginous, beset beneath with short black bristles ; back brownish tawny, tawny at the base and thence partly along each side, which is adorned with a row of yellow spots : legs pale tawny, clothed with short black hairs ; thighs clothed with short white hairs ; claws black towards the tips : wings whitish ; wing-ribs and veins pale tawny ; *angle of the tip cross-vein very obtuse, slightly rounded ;* scales whitish, with pale tawny borders ; poisers pale tawny.

Fem. Head golden yellow above, white beneath : eyes bronzed ; the facets as usual : palpi sometimes white : abdomen darker than that of the male, its back gray, with a stripe composed of hoary hairs along each side.

Length of the body 3½—4 lines ; of the wings 7—8 lines.

East India.

Tabanus Pyrrhus, Plate 2, fig. 4, Mas., fig. 5, Fem.

Mas et Fem. *Cinereus, thoracis lateribus, abdomineque fulvis* (fem. *abdomine cinereo lateribus basi fulvis*), *antennis fulvis basi flavis, pedibus fulvis, tarsis anticis piceis, alis albidis.*

Male. Head whitish and clothed with white hairs beneath : eyes pale red, of one colour, but divided into two very distinct regions, distinguished by the great difference in the size of the facets : sucker pale tawny ; lancets pale ferruginous ; palpi yellowish white, clothed with white hairs : feelers bright tawny ; first and second joints pale yellow, beset with a few very short black bristles ; *third joint very slightly convex beneath, forming above a very shallow obtuse angle whose hind side is one fourth of the length of its fore side ; compound joint curved upward, much shorter than the third joint :* chest and breast gray, clothed with hoary hairs ; their sides tawny : abdomen tawny, obconical, very much longer than the chest, clothed with hoary hairs, darker towards the tip : under side ferruginous towards the tip which is beset with a few short black bristles : legs tawny, clothed with a few very short black hairs ; thighs clothed with white hairs ; feet and fore-shanks darker towards the tips ; claws black ; fore-feet pitchy : wings whitish ; wing-ribs and veins pale ferruginous ; *angle of the tip cross-vein distinct but very obtuse, sending forth a stump which is more or less shorter*

than its inner side; brands pale yellow; scales whitish with pale tawny borders; poisers yellow.

Fem. Crown of the head hoary, adorned with two black shining spots: eyes red; the facets as usual: sucker pitchy towards the tip: abdomen gray, slightly obconical, clothed with short pale yellow hairs; sides of the first, second and third segments tawny; under side hoary.

Length of the body 5—5½ lines; of the wings 9—10 lines.

East India.

Tabanus albimedius, Fem.

Cinereo-ferrugineus, pectore cano, abdomine maculis fulvis subtrigonis trivittato, antennis fulvis apice nigris, pedibus ferrugineis, tibiis anticis apice tarsisque anticis piceis, alis limpidis.

Body ferruginous: crown of the head adorned with a buff covering which is interrupted by a ferruginous, convex, shining, club-shaped mark; under side white and clothed with white hairs: eyes brassy, parted above by a moderate interval: sucker black; lancets ferruginous; palpi whitish yellow, clothed with short whitish hairs: feelers ferruginous; first and second joints tawny, beset above at the tips with very short black bristles; *third joint slightly convex beneath, its horn forming a very shallow and obtuse angle, whose fore side is very short and forms an extremely obtuse angle with the continuation of the third joint to the tip; compound joint black, curved upward, rather more than half the length of the third joint:* chest tinged with gray; breast hoary, clothed with white hairs: abdomen obconical, with a slight hoary tinge, much longer than the chest, adorned above with three pale tawny stripes which are composed of imperfectly triangular spots: legs ferruginous, clothed with short pale yellow hairs; thighs much paler than the shanks; claws black; fore-feet and tips of fore-shanks pitchy: wings quite colourless; wing-ribs tawny; veins black, tawny towards the base; brands dark tawny; *curve of the tip cross-vein inclining to an obtuse angle;* scales and poisers tawny, knobs of the latter bright pale yellow. Length of the body 7 lines; of the wings 14 lines.

East India.

TABANUS TENENS, Fem.

Ferrugineus, thoracis vittis duabus lateribus pectoreque canis, abdomine fusco-ferrugineo vittis tribus fulvis ornato, antennis ferrugineis basi fulvis apice nigris, pedibus fulvis, tarsis ferrugineis, alis limpidis.

Body ferruginous: crown of the head adorned with a tawny covering which is interrupted by a ferruginous, shining, convex, club-shaped mark; under side white and clothed with white hairs: sucker black: lancets ferruginous; palpi pale yellow, clothed with short white hairs: feelers ferruginous; first and second joints tawny, clothed with short black bristles; *third slightly convex beneath, its horn forming a little shallow obtuse angle whose fore side forms also an obtuse angle with the continuation of the third joint to the tip; compound joint curved upward*, tipped with black, *shorter than the third joint:* chest adorned with two hoary stripes; sides and breast hoary: abdomen obconical, much longer than the chest, its back brownish ferruginous and adorned with three pale tawny stripes, the middle one broader and more distinct than the side pair: legs tawny, clothed with short black and white hairs; feet ferruginous, with pitchy tips; claws black: wings quite colourless; brands dark tawny; wing-ribs and veins tawny, the latter black towards the tips; *curve of the tip cross-vein slight, not angular;* scales and poisers tawny. Length of the body 7 lines; of the wings 14 lines.

East India.

TABANUS HILARIS, Plate 2, fig. 3.

Mas. *Ferrugineus, thoracis vittis duabus lateribus pectoreque canis, abdomine vittis tribus canis ornato, antennis fulvis apice ferrugineis, pedibus fulvis, tarsis ferrugineis, tibiis anticis apice tarsisque anticis piceis, alis limpidis.*

Body ferruginous: head white and clothed with white hairs beneath: eyes divided into two regions; the upper one composed of large facets, is traversed by a spindle-shaped dark brown band which is shortened at each end, and divides the fore yellow band from the pale red hind band; side region composed of very small facets, dark bronze, extending in a narrow band along the hind border: sucker black: feelers bright tawny, paler at the base, *third joint slightly convex above and beneath, not angular; com-*

pound joint ferruginous, slightly curved upward, shorter that the third joint : chest and breast hoary; disk of the former ferruginous, adorned with two oblong hoary stripes: abdomen obconical, a little longer than the chest; its back brownish ferruginous, adorned with three hoary stripes, the side pair connected by a slender band at the base, and extending thence to the hind border of the third segment; the middle one begins at the fore border of the third segment, and extends nearly to the tip; under side pale tawny, clothed with short whitish hairs: legs tawny, clothed with short pale hairs; hips and thighs tinged with gray; feet ferruginous; claws black; fore-feet and tips of fore-shanks pitchy: wings colourless; wing-ribs tawny; veins black, tawny towards the base; *curve of the tip cross-vein slightly inclining to a very obtuse angle.* Length of the body 5½ lines; of the wings 11 lines.

East India.

Tabanus crassus, Mas.

Piceo-ferrugineus, latus, abdomine basi fulvo, antennis basi fulvis, pedibus piceis, alis limpidis.

Body very stout, dark ferruginous, inclining to pitch colour, with a slight hoary covering: head dark tawny beneath; eyes bronzed, of one colour, but as usual, of two regions: sucker black; first and second joints of the feelers tawny: abdomen slightly obconical, a little longer and broader than the chest, dark tawny towards the base above: legs pitchy; foot-cushions tawny; claws black, tawny towards the base: wings colourless; brands brown; wing-ribs and veins pale ferruginous, the latter darker towards the tips; *curve of the tip cross-vein slight;* scales and poisers dark tawny; knobs of the latter bright pale yellow. Length of the body 8½ lines; of the wings 17 lines.

East India.

Tabanus vagus, Fem.

Cinereus, thoracis lateribus ferrugineis, abdomine ferrugineo maculis trigonis flavo-pilosis trivittato, antennis basi fulvis, pedibus ferrugineis, tarsis piceis, tibiis apice tarsisque nigris, alis subcinereis.

Body gray: crown of the head with a dark tawny covering, which is interrupted by a ferruginous, shining, club-shaped, convex mark; front

pale tawny ; under side whitish and clothed with white hairs : eyes coppery, parted above by a moderate interval : sucker black ; lancets pale ferruginous ; palpi whitish yellow, thinly clothed with very short black hairs : first and second joints of the feelers tawny, beset with short black bristles : sides of the chest ferruginous ; breast clothed with hoary hairs : abdomen ferruginous, slightly obconical, pitchy towards the tip, a little broader and much longer than the chest, adorned above with three stripes of somewhat triangular spots, which are clothed with pale yellow hairs ; the middle stripe narrower than the side pair : legs ferruginous, tinged with gray, clothed with pale yellow hairs ; feet pitchy, red beneath ; fore-feet and tips of fore-shanks black : wings slightly gray ; wing-ribs ferruginous ; veins black, ferruginous towards the base ; *curve of the tip cross-vein not angular ;* scales tawny ; poisers tawny, with bright pale yellow knobs. Length of the body 8 lines ; of the wings 16 lines.

East India. Java.

Tabanus rubiginosus, Fem.

Ferrugineus, abdomine maculis trigonis fulvis trivittato, antennis ferrugineis apice nigris, pedibus fulvis, tibiis anticis apice tarsisque piceis, tarsis anticis nigris, alis subcinereis.

Body ferruginous : crown of the head adorned with a pale tawny covering, which is interrupted in front by a convex, shining, club-shaped, ferruginous mark ; under side whitish and clothed with white hairs : eyes bronzed, parted above by a moderate interval ; sucker black, short and stout ; lancets ferruginous ; palpi pale yellow : feelers ferruginous ; first and second joints clothed with short black hairs ; third black on the inner side towards the tip ; *slightly convex beneath, armed above with a very shallow and obtuse angle which occupies the whole length, and whose fore side is slightly concave ; compound joint black, curved upward, much shorter than the third joint :* breast pale ferruginous, clothed with hoary hairs : abdomen obconical, longer than the chest, adorned with three indistinct rows of tawny, triangular spots : legs tawny ; feet and tips of fore-shanks pitchy ; fore-feet black : wings slightly gray ; wing-ribs ferruginous ; veins pitchy, ferruginous towards the base ; *curve of the tip cross-vein slight, not angular ;* brands pale brown ; scales and poisers tawny. Length of the body 8 lines ; of the wings 15 lines.

East India.

Tabanus umbrosus, Fem.

Cinereus, thorace vittis tribus ferrugineis ornato, abdomine rufo-fusco vittis tribus fulvis, antennis basi pedibusque fulvis, femoribus subcinereis, tarsis piceis, tarsis anticis nigris, alis cinereis.

Head adorned with a whitish covering, clothed beneath with white hairs: a club-shaped, dark tawny, shining mark on the crown: eyes bronzed, parted above by a moderate interval: sucker pitchy: palpi pale yellow, clothed with very short black hairs: first and second joints of the feelers tawny: chest and breast gray; sides ferruginous; chest adorned with three indistinct ferruginous stripes: abdomen reddish brown, slightly obconical, longer than the chest, adorned with three pale tawny stripes; middle stripe narrow, linear; side pair broader and composed of spots; under side tawny: legs tawny, clothed with very short black hairs; thighs tinged with gray, clothed with pale tawny hairs; claws, fore-feet and tips of fore-shanks black; feet pitchy; foot-cushions pale tawny: wings gray; wing-ribs pitchy; veins black, pitchy at the base and along the fore border; *curve of the tip cross-vein not angular;* scales dark tawny; poisers pitchy, with yellow knobs. Length of the body $8\frac{1}{2}$ lines; of the wings 18 lines.

East India.

Tabanus hirtus, Mas.

Nigro-cinereus, abdominis basi utrinque et segmentorum marginibus posticis fulvis, palpis fulvis, antennis pedibusque nigris, tibiis posterioribus ferrugineis, alis cinereis basi costa nervisque transversis fuscis.

Body grayish black: head clothed in front and beneath with dull pale tawny hairs: eyes dark bronze, very thickly clothed with short tawny hairs, having only one region, which is composed of very small facets: sucker black: palpi dark tawny, very thickly clothed with black and pale tawny hairs: feelers black; first and second joints thickly clothed with black hairs; *third joint very shallow, rather convex beneath, slightly rising, and forming a very obtuse angle above:* chest clothed with dull, dark tawny hairs; breast tinged with gray, clothed with paler hairs: abdomen obconical, longer and a little broader than the chest, clothed on each side with black and tawny hairs; a large dark tawny spot on each side of the first and second segments; hind borders of the segments pale tawny; legs

black; thighs clothed with tawny hairs; shanks and feet clothed with short black hairs; fore-shanks at the base, and four hinder shanks dark ferruginous; foot-cushions pale tawny: wings gray, brown at the base and along the borders of the cross-veins, slightly tinged with brown beneath the fore border as far as the brand, which is also brown; wing-ribs dark ferruginous; veins black; *curve of the tip cross-vein very slight, no angle nor stump;* scales gray, with tawny borders; poisers tawny. Length of the body 6 lines; of the wings 12 lines.

East India.

Tabanus puella, Mas.

Ferrugineus, pectore cano, abdomine basi fulvo pilis fulvis trivittato, antennis pedibusque fulvis, tarsis posterioribus basi flavis, alis limpidis.

Allied to *T. Virgo*, of Wiedemann. Body ferruginous: head adorned with a tawny triangular spot at the base of the feelers, clothed beneath with white hairs: eyes very large, divided into two very distinct regions; upper region bright red, very large, and composed of very large facets; fore region pitchy, small, composed of small facets, confined to the sides, not extending along the hind border of the eyes: sucker and lancets pale ferruginous: palpi whitish yellow, clothed towards the tips with short black hairs: feelers short, bright tawny; tips of the first and second joints forming acute angles above; *third joint deep, convex beneath, not horned, but forming an obtuse angle above; compound joint small, hardly curved upward,* its tip black: chest tinged with gray: breast hoary: abdomen dull ferruginous, obconical, very much longer than the chest, tawny towards the base, adorned with three indistinct stripes which are formed of short pale yellow hairs; a hoary tinge on the under side: legs tawny, clothed with short whitish hairs; shanks and feet clothed with very short black hairs; four hinder feet yellow at the base; claws black towards the tips; wings colourless; wing-ribs and veins tawny, the latter darker towards the tips; brands pale tawny; *angle of the tip cross-vein distinct, but with no stump;* scales grayish, with tawny borders; poisers pale tawny. Length of the body 4 lines; of the wings 8 lines.

East India.

Tabanus sanguineus, Fem.

Rufus, abdominis lateribus flavis, segmentorum marginibus posticis fulvis, antennis basi pedibusque ferrugineis, tibiis flavis, tarsis nigris, alis limpidis basi et ad costam subfulvis.

Body red, thinly clothed with pale yellow hairs: head tawny in front, thickly clothed beneath with white hairs: eyes brassy-black, parted above by a moderate interval; facets small, but rather larger on the fore part than elsewhere: sucker black; lancets ferruginous; palpi tawny: first and second joints of the feelers ferruginous, produced above into short black horns: abdomen obconical, much longer than the chest; hind borders of the segments tawny; sides of the second, third and fourth segments yellow: legs ferruginous, clothed with short yellow hairs; shanks yellow, their tips and the foot-cushions ferruginous; feet black, clothed with black hairs: wings colourless, with a slight tawny tinge at the base and along the fore border; wing-ribs and veins ferruginous; *curve of the tip cross-vein almost obtusely angular, with no stump;* scales and poisers tawny, the latter with white knobs. Length of the body 8 lines; of the wings 16 lines.

Java.

Tabanus obconicus, Mas.

Ferrugineus, thorace fulvo subvittato, abdomine fulvo maculis trigonis ferrugineis ornato, antennis ferrugineis basi fulvis, pedibus fulvis, tarsis piceis, alis subcinereis basi et ad costam subfulvis.

Body ferruginous: head tawny in front, clothed beneath with whitish hairs: eyes very large, divided into two distinct regions; upper region brassy red, composed of very large facets; fore region purplish black, with a brassy tinge, surrounding the other by means of a narrow band along the hind border of the eyes, composed of small facets: palpi tawny: feelers ferruginous; first joint tawny; *third slightly conical above but with no horn; compound joint slightly curved upward*, darker at the tip: chest with indistinct tawny stripes, clothed with tawny hairs; breast more thickly clothed with pale yellow hairs: abdomen tawny, obconical, very much longer than the chest, darker towards the tip; third and each of the following segments adorned with two triangular ferruginous spots resting

on the fore border: legs tawny; thighs clothed with pale yellow hairs; shanks and feet clothed with short black hairs; feet pitchy, tawny at the base; claws black; foot-cushions pale tawny; fore-shanks from half the length to the tips and fore-thighs pitchy; fore-feet black: wings pale gray, tawny at the base, and with a slight tawny tinge along the fore border; brands tawny; cross-veins clouded with pale brown; wing-ribs tawny; veins black, tawny towards the base; *curve of the tip cross-vein almost obtusely angular, with no stump;* scales and poisers tawny, the latter with pale yellow knobs. Length of the body 6 lines; of the wings 12 lines.

Central India.

Tabanus fervidus, Fem.

Cinereus, pectore cano, abdomine fulvo vittis tribus canis ornato, antennis ferrugineis apice nigris, pedibus fulvis, tibiis anticis apice tarsisque piceis, tarsis anticis nigris, alis subcinereis basi costaque subfulvis.

Body gray: head dark tawny above, yellowish white in front and beneath where it is clothed with whitish hairs; a long, pitchy, shining ridge on the crown: eyes dark bronze, parted above by a moderately broad interval; all the facets very small, but largest on the inner side of the fore part: sucker black; lancets bright pale ferruginous: palpi yellow, rather long, clothed with short black hairs: feelers bright ferruginous; first and second joints clothed with short black hairs; *horn of the third joint very short and broad;* compound joint black, *slightly curved upward:* chest gray; breast hoary: abdomen tawny, obconical, very much longer than the chest, adorned with three hoary stripes, the middle one distinct, the side pair indistinct and interrupted, especially towards the base: legs tawny; thighs clothed with pale hairs; shanks and feet clothed with short black hairs; fore-shanks towards the tips and feet pitchy; claws and fore-feet black: wings pale gray, with a slight tawny tinge at the base, and along the fore border as far as the brand, which is pale brown; wing-ribs tawny; veins black, tawny towards the base; *a slight curve but no angle nor stump near the base of the tip cross-vein;* scales gray with tawny borders; poisers pale tawny. Length of the body 8 lines; of the wings 16 lines.

Asia.

Tabanus consocius, Fem.

Nigro-cinereus, capite subtus flavescente, pectore cano, abdomine fulvo apice nigro, segmentorum marginibus posticis flavis, antennis basi fulvis, pedibus fulvis, tarsis anticis femoribusque nigris, tibiis tarsisque apice ferrugineis, alis subcinereis basi et ad costam subfulvis.

Body black: head thickly covered with tawny bloom, pale yellow and clothed with pale yellow hairs beneath: eyes dark bronze, parted on the crown by a moderate interval; all the facets very small: sucker black; lancets pale ferruginous: palpi pale tawny with darker tips, clothed with short black hairs: first and second joints of the feelers tawny, clothed with black hairs: chest tinged with gray, clothed on each side with some pale yellow hairs; breast hoary: abdomen tawny, obconical, much longer than the chest, black towards the tip; hind borders of the segments yellow: legs tawny, clothed with short black and tawny hairs; thighs black, with tawny tips, clothed with long pale yellow hairs; tips of the shanks and of the feet ferruginous: claws and fore-feet black; foot-cushions dark tawny: wings slightly gray, tawny at the base and along two-thirds of the length of the fore border; brands yellowish brown; wing-ribs tawny; veins black, tawny towards the base; *angle of the tip cross-vein obtuse, distinct; no stump;* scales grayish; poisers bright pale tawny. Length of the body 6½ lines; of the wings 13 lines.

East India.

Tabanus perlinea, Fem.

Cinereus, pectore cano, abdomine nigro, macula utrinque basi et segmentorum marginibus posticis fulvis, antennis ferrugineis basi fulvis, apice nigris, pedibus cinereis, tibiis tarsisque fulvis, his supra piceis, alis subcinereis basi et ad costam fulvis.

Body gray: head covered above with tawny bloom, hoary behind and beneath where it is clothed with pale yellow hairs; a pitchy, shining, convex mark in front of the crown: eyes black, parted above by a moderately broad interval, composed of very small facets; the facets on the inner sides of the fore part are rather larger than those elsewhere: sucker black; lancets pale ferruginous; palpi tawny, clothed with short black and pale yellow hairs: feelers bright pale ferruginous; first and second joints tawny,

thinly clothed with short black hairs; *third gibbous and armed with a black point above, but not forming a horn;* compound joint black, *very slightly curved upward:* breast hoary; sides clothed with pale yellow hairs: abdomen black, obconical, much longer than the chest, thinly clothed with short pale yellow and black hairs, adorned with a large tawny spot on each side towards the base, and with a tawny hind border to each segment: legs gray, clothed with short yellow hairs; tips of the thighs tawny; shanks tawny, with pitchy tips; feet pitchy above, tawny beneath; claws black; foot-cushions tawny: wings pale gray, tawny at the base and along the fore border as far as the brand, which is pale brown; wing-ribs tawny; veins black, tawny towards the base; *a curve near the base of the tip cross-vein, but no angle nor stump;* scales tawny; poisers ferruginous. Length of the body 7 lines; of the wings 14 lines.

East India.

Tabanus calidus, Fem.

Cinereo-fulvus, thorace fulvo trivittato, abdomine fulvo vitta pallidiore, apice piceo, antennis basi pedibusque fulvis, femoribus cinereis, tarsis piceis, alis cinereis, basi costa venarumque marginibus fulvis.

Body grayish tawny: head covered above with buff, hoary behind and beneath where it is thinly clothed with white hairs; crown adorned with a shining, pitchy, club-shaped, convex mark, which has slight oblique furrows: feeler region with a slight interrupted cross-furrow behind, and with a more distinct longitudinal furrow; region of the face divided by a curved furrow from that of the eyes, and having on each side a ridge which extends to the base of the palpi: eyes bronze, with a purple tint in front, parted above by a moderately broad interval; facets very small, a little larger on the inner side of the fore part than elsewhere: sucker rather long, tinged with grayish tawny towards the base, pitchy towards the tip; palpi yellow, clothed with very short black and pale yellow hairs. first and second joints of the feelers tawny: chest with three indistinct tawny stripes: sides somewhat tawny; breast hoary, partly clothed with whitish hairs: abdomen tawny, obconical, very much longer than the chest, pitchy towards the tip, adorned above with a silky lustre, and with a broad regular buff stripe which extends along the whole length, and has on each side one of the same colour, but indistinct and irregular; under side tinged with hoary; segments above and beneath impressed with several rows of

little punctures which are variously disposed: legs tawny, clothed with short whitish hairs; hips and thighs gray; feet pitchy; fore-feet and tips of fore-shanks black: wings gray, tawny at the base and beneath the fore border as far as the brand, and along the borders of the veins; brand yellowish brown; wing-ribs tawny; veins black, tawny towards the base; *an almost angular curve, but no stump near the base of the tip cross-vein;* scales dull tawny; poisers bright tawny. Length of the body $7\frac{1}{2}$ lines; of the wings 15 lines.

Asia?

Australian Species.

Tabanus abstersus, Fem.

Nigro-cinereus, thoracis lateribus, pectore, abdominisque segmentorum marginibus posticis ferrugineis, antennis ferrugineis apice piceis, pedibus ferrugineis, tibiis anticis apice tarsisque piceis, tarsis anticis nigris, alis cinereis.

Body black: head adorned with a hoary covering, which is interrupted by a black, shining, club-shaped mark on the crown; under side clothed with white hairs: eyes bronzed; the facets as usual: sucker black; lancets and palpi pale ferruginous; a hoary tinge on the palpi: feelers dark ferruginous, seated on a ferruginous tubercle; *third joint forming above an extremely obtuse and shallow angle whose fore side is slightly concave, its hind side slightly convex; compound joint pitchy, very slightly curved upward, much longer than the third joint:* chest tinged with gray; sides and breast pale ferruginous, thinly clothed with hoary hairs: abdomen slightly obconical, much longer than the chest, thinly clothed with short hoary and black hairs; hind borders of the segments pale ferruginous: legs ferruginous; hips and thighs tinged with gray; feet and tips of the fore-shanks pitchy; claws and fore-feet black; foot-cushions tawny: wings gray; wing-ribs ferruginous; veins black, ferruginous towards the base; *angle of the tip cross-vein slightly obtuse, very distinct, its stump as long as its shorter side;* scales gray; poisers tawny with pitchy tips. Length of the body 5 lines; of the wings 10 lines.

New South Wales.

Country unknown.

Tabanus ligatus, Fem.

Ferrugineus, thorace subvittato, abdomine fulvo vitta interrupta apiceque fuscis, antennis basi pedibusque fulvis, tarsis ferrugineis, tibiis anticis apice tarsisque anticis nigris, alis subcinereis basi fulvis, nervis transversis fusco subnebulosis.

Body pale ferruginous: covering of the head tawny above, whitish yellow beneath where it is clothed with pale yellow hairs; ridge on the crown long, slender, ferruginous, shining, club-shaped in front: eyes brassy, parted above by a moderately broad interval; all the facets very small: sucker black; lancets pale ferruginous; palpi pale yellow, clothed with short black hairs: first and second joints of the feelers tawny, clothed with short black hairs; tip of the first forming a short stout horn; tip of the second forming two short slender horns: chest indistinctly striped with pale colour, which also prevails on each side and on the breast, the latter is partly clothed with pale tawny hairs: abdomen dark tawny, very slightly obconical, much longer than the chest, adorned above with a pale brown middle stripe, which is interrupted on the hind border of each segment, but comprizes the whole of the tip, clothed with short pale tawny hairs, and towards the tip with short black hairs; under side paler: legs tawny; hips and thighs clothed with whitish hairs; hips gray: shanks clothed with bright tawny hairs: feet ferruginous, clothed with short black hairs, pitchy towards the tips; foot-cushions tawny; claws, fore-feet and tips of fore-shanks black: wings pale gray, tawny at the base; cross-veins slightly clouded with brown; brands pale tawny; wing-ribs and veins tawny, the latter black towards the tips; *angle of the tip cross-vein slightly rounded, no stump;* scales pale tawny, with darker borders; poisers tawny, their knobs yellow, with white tips. Length of the body 9 lines; of the wings 20 lines.

——— ♀

Tabanus sequens, Fem.

Niger fulvo tectus, thorace subvittato, abdominis fulvi vitta nigra maculis fulvis ornata, antennis nigris, articulis basi ferrugineis, pedibus fulvis, femoribus nigro-cinereis, tibiis tarsisque anticis nigris, alis cinereis basi costa nervorumque marginibus flavo-fuscis.

Body black: covering of the head tawny above, yellowish hoary beneath where it is clothed with pale yellow hairs; two black, shining, convex marks on the crown, one long and slender, the other round: eyes black, parted above by a broad interval; facets small, but slightly increasing in size towards the inner fore border: sucker black; lancets ferruginous; palpi tawny, clothed with short black hairs: feelers black; first, second and third joints dark ferruginous towards the base; first and second clothed with short black hairs; *horn of the third joint short and stout; compound joint slightly curved upward:* chest indistinctly striped, adorned with a grayish tawny covering, clothed with short tawny hairs; a tuft of black hairs at the base of each wing; breast gray, clothed with pale tawny hairs; abdomen tawny, clothed with short pale tawny hairs, very slightly obconical, a little broader and much longer than the chest, adorned above with a black middle stripe, which is inlaid on each segment with a triangular tawny spot whose base is pale yellow and rests on the hind border of the segment; sides of the segments pitchy towards the tip; under sides paler, not striped: legs tawny; thighs grayish black, clothed with pale tawny hairs; shanks fringed with black hairs, clothed beneath with very short pale tawny hairs; feet pitchy towards the tips; claws tawny with black tips; foot-cushions pale tawny; fore-shanks except the base and fore-feet black: wings gray, yellowish brown at the base along the borders of the veins and beneath the fore border, as far as the brand which is dark brown; wing-ribs ferruginous; veins black, ferruginous at the base and along the fore border; *curve of the tip cross-vein very slight, no angle nor stump;* scales grayish tawny, with tawny borders; poisers ferruginous, with bright pale tawny knobs. Length of the body 8 lines; of the wings 17 lines.

—— ?

Tabanus Janus, Fem.

Fulvo-cinereus, thorace subvittato, pectore cano, abdomine fulvo apice piceo, antennis basi pedibusque fulvis, femoribus cinereis, tarsis piceis, alis subcinereis basi et ad costam fulvis.

Body gray: covering of the head tawny above, hoary beneath where it is clothed with white hairs; crown adorned with a pitchy, shining, interrupted stripe: eyes bronze, parted above by a moderately broad interval; all the facets very small: sucker black; palpi pale yellow, clothed with very short black hairs: first and second joints of the feelers tawny, clothed with very short black hairs: chest adorned with a tawny tinge, very indistinctly striped; breast hoary, clothed with whitish hairs: abdomen tawny, obconical, clothed with short black hairs, paler beneath, pitchy at the tip, very much longer than the chest: legs tawny; hips and thighs gray, clothed with whitish hairs; shanks fringed with short black hairs; feet pitchy: wings pale gray, tawny at the base and along the fore border as far as the brand which is dark tawny; wing-ribs ferruginous; veins black, ferruginous at the base and along the fore border; *curve of the tip cross-vein rather slight, no angle nor stump;* scales pale gray, with ferruginous borders; poisers tawny, with yellow tips. Length of the body 7 lines; of the wings 14 lines.

——— ♀

Tabanus planus, Mas.

Cinereus, pectore cano, abdominis maculis duabus basi lateribusque fulvis, antennis basi pedibusque flavis, femoribus cinereis, tibiis apice tarsisque piceis, tibiis anticis fulvis apice nigris, tarsis anticis nigris, alis limpidis.

Body gray, thickly clothed with pale tawny hairs: covering of the head pale tawny: under side clothed with pale yellow hairs: eyes red, of one colour but divided into two distinct regions; upper region shining, larger than the other, composed of large facets: fore region dull, composed of very small facets, surrounding the first by means of a narrow band along the hind border: sucker black, clothed with tawny hairs; palpi pale yellow, clothed with paler hairs: first and second joints of the feelers clothed with short black hairs; first joint yellow, second tawny: breast hoary: abdomen obconical, longer than the chest, adorned on each side of the base

with a large pale tawny spot, which is continued in a side stripe to the tip: legs pale yellow, clothed with pale yellow hairs; hips and thighs gray; tips of the shanks pitchy; feet pitchy, tawny at the base; fore-shanks dark tawny, black from the middle to the tips; claws and fore-feet black; foot-cushions pale tawny: wings colourless; wing-ribs and veins pale tawny, the latter black towards the tips; brands tawny; *angle of the tip cross-vein very distinct, slightly obtuse, sending forth a moderately long stump;* scales colourless, with pale yellow borders; poisers tawny, with whitish yellow knobs. Length of the body $6\frac{1}{2}$ lines; of the wings 12 lines.

——— ?

Tabanus connexus, Fem.

Cinereus, thoracis vittis tribus pectoreque canis, abdomine piceo vittis una integra duabusque interruptis cinereis ornato, segmentorum marginibus posticis fulvis, antennis fulvis apice nigris, pedibus flavis, femoribus cinereis, tarsis piceis, tarsis anticis nigris, alis cinereis.

Body gray: covering of the head tawny, hoary beneath where it is clothed with white hairs: eyes dark bronze, parted by a rather broad interval; all the facets very small: sucker black; palpi pale yellow, clothed with very short black hairs: feelers dark tawny; first and second joints clothed with short black hairs, their tips lengthened into acute angles; *third joint slightly convex beneath, widened above into a nearly right angle,* black towards the tip; compound joint black, *very slightly curved upward*; chest adorned with three indistinct hoary stripes: breast hoary, partly clothed with white hairs: abdomen pitchy, dull, slightly obconical, very much longer than the chest, adorned with three gray stripes, the middle stripe entire, the side stripes formed of spots; under side tinged with gray; hind borders of the segments pale tawny: legs yellow, clothed with short pale yellow hairs; hips and thighs gray; tips of the shanks pitchy; feet pitchy, ferruginous towards the base; claws and fore-feet black; foot-cushions pale tawny: wings gray; brands brown; wing-ribs tawny; veins black, ferruginous at the base and along the fore border; *a slight curve near the base of the tip cross-vein, no angle nor stump;* scales gray, with tawny borders; poisers tawny, with paler tips. Length of the body 6 lines; of the wings 12 lines.

——— ?

Tabanus contactus, Fem

Cinereus, pectore cano, abdominis maculis duabus lateribus et segmentorum marginibus posticis fulvis, antennis ferrugineis basi fulvis apice piceis, pedibus fulvis, femoribus cinereis, tarsis piceis, alis subcinereis.

Head tawny, adorned with a hoary covering which on the crown is interrupted by two pitchy, shining marks, one round, the other very slender: eyes dark bronze; the facets as usual: sucker pitchy: lancets ferruginous; palpi pale yellow, clothed with short black hairs: feelers ferruginous; first and second joints tawny, clothed with short black hairs: *third joint slightly convex beneath, armed above with an obtuse angle, whose fore side is not longer than its hind side;* compound joint pitchy, *very slightly curved upward, as long as the third joint:* chest gray; breast hoary, thinly clothed with short white hairs: abdomen gray, slightly obconical, longer than the chest, thinly clothed with short pale hairs; sides and hind borders of the segments tawny; a large tawny spot on each side of the second segment: legs tawny, clothed with very short black hairs; hips and thighs gray, clothed with white hairs; feet pitchy; claws and fore-feet black: wings pale gray; wing-ribs and veins tawny, the latter black towards the tips; *curve of the tip cross-vein inclining to an obtuse angle;* brands dull yellow; wings pale gray, with tawny borders; poisers tawny. Length of the body 4 lines; of the wings 9 lines.

———?

Tabanus hispidus, Mas.

Cinereus, thoracis lateribus abdomineque ferrugineis, hoc basi nigro vittato, antennis ferrugineis, basi fulvis, pedibus ferrugineis, tarsis piceis, tarsis anticis nigris, alis subcinereis.

Head beneath dark tawny, clothed with pale tawny hairs: eyes dark bronze, thickly clothed with short dark tawny hairs; all the facets very small: sucker black; palpi hoary: eyes tawny, clothed with short pale yellow hairs; feet black, ferruginous beneath; tips of the fore-shanks black: wings pale gray; wing-ribs and veins ferruginous, the latter pitchy towards the tips; *angle of the tip cross-vein very obtuse, slightly rounded;* poisers tawny, with pale yellow knobs. Length of the body 8 lines; of the wings 16 lines.

———?

Tabanus variatus, Fem.

Cinereus, thoracis lateribus vittisque tribus canis, abdomine fulvo maculis trigonis canis nigro marginatis vittaque ferruginea variatis ornato, antennis nigris basi ferrugineis, pedibus fulvis, femoribus cinereis, tarsis piceis, propedum femoribus tibiis apice tarsisque nigris, alis subcinereis.

Body gray: head adorned with a yellowish white covering, which is interrupted by a pitchy convex club-shaped mark in front of the crown; under side white and clothed with white hairs: eyes bronzed; the facets as usual: sucker black; lancets ferruginous; palpi pale yellow, clothed with short black hairs: feelers black, partly ferruginous towards the base; *third joint slightly convex beneath, armed above with a small short stout slightly acute horn; compound joint curved upward, shorter than the third joint:* chest adorned with three hoary stripes; sides and breast hoary; tip of the scutcheon ferruginous: abdomen obconical, tawny, longer than the chest, pitchy towards the tip, adorned above with a stripe composed of hoary triangular spots with black borders and inlaid in a broad ferruginous stripe: legs tawny; thighs gray; feet pitchy; claws black, tawny at the base; fore-thighs, fore-feet, and tips of fore-shanks black; tips of the middle-shanks armed with black spines: wings pale gray; wing-ribs and veins tawny, the latter black towards the tips; *angle of the tip cross-vein obtuse, slightly rounded;* brands pale brown; scales tawny; poisers tawny, with yellowish knobs. Length of the body 8 lines; of the wings 15 lines.

———?

Tabanus honestus, Fem.

Niger fulvo tectus, thoracis lateribus fulvo maculatis, pectore cano, abdomine fulvo, vitta apiceque nigris, antennis fulvis apice ferrugineis, pedibus fulvis, tarsis anticis nigris, alis limpidis basi et ad costam fulvis.

Body black: head covered with tawny bloom, tinged with hoary, and clothed with yellow hairs beneath; two shining, black, convex marks in front of the crown, the one conical, the other round: eyes red, parted above by a rather broad interval; all the facets very small: sucker pitchy: lancets pale ferruginous: palpi pale yellow, thinly clothed with short black

hairs: feelers tawny; first and second joints pale tawny, clothed with short black hairs; *third joint convex beneath, angular above, but not horned;* compound joint pale ferruginous, *curved upward:* chest tinged with dull tawny; a tawny spot on each side at the base of the wings: breast hoary, partly clothed with white hairs: abdomen bright tawny, slightly obconical, clothed with short tawny hairs, very much longer than the chest, adorned above with a black stripe which widens towards the tip, where it occupies the whole surface; under side paler: legs bright tawny, clothed with yellow hairs; shanks and feet clothed with short black hairs; tips of feet and of fore-shanks pitchy; claws and fore-feet black: wings colourless, tawny at the base and along the fore border as far as the brand which is also tawny; wing-ribs and veins tawny, the latter pitchy towards the tips; *angle of the tip cross-vein obtuse, very distinct, sending forth a short stump;* scales slightly gray, with tawny borders; poisers yellow, with whitish knobs. Length of the body 7 lines; of the wings 14 lines.

——— ?

Tabanus fulviger, Mas.

Fulvus, pectore cano, antennis ferrugineis basi fulvis, pedibus fulvis, alis limpidis.

Body tawny: head pale tawny in front, whitish, and clothed with white hairs beneath; eyes brassy, of one colour but divided into two distinct regions; upper region composed of very large facets; fore region on each side of the front, not extending along the hind border, composed of very small facets: sucker pitchy; palpi pale yellow, clothed with long yellowish white hairs: feelers ferruginous; first and second joints tawny, clothed with short black hairs; *third unusually shallow at the base, almost straight beneath, slightly rising and forming a very obtuse angle above;* compound joint dark ferruginous, *rather long and slender, hardly curved upward:* chest thickly clothed with short tawny hairs: breast hoary, partly clothed with whitish hairs: abdomen obconical, clothed with short tawny hairs, longer and a little broader than the chest; segments impressed with rows of little punctures, their hind borders pale: legs tawny; thighs clothed with pale yellow hairs; shanks and feet rather darker than the thighs, clothed with short black hairs; claws black; foot-cushions pale tawny: wings quite colourless; wing-ribs and veins tawny; *an obtuse distinct angle sending forth a moderately long stump near the base of the tip*

cross-vein; scales colourless, with tawny borders; poisers tawny. Length of the body 5 lines; of the wings 11 lines.

———?

Tabanus rufoniger, Fem.

Niger, capite anticè subtusque fulvo, thoracis lateribus vittis duabus pectoreque rufis, abdomine basi subtusque rufo, segmentorum marginibus posticis subtus fulvis, pedibus piceis, alis cinereis, basi costa venarumque marginibus fuscis.

Body black: head in front and beneath tawny, covered with a hoary bloom, clothed with pale yellow hairs: eyes bronze, large, parted by a very narrow interval on the crown, and almost in contact on the fore part; facets very small, but a little larger in front than elsewhere: sucker black; lancets ferruginous; palpi yellow: feelers black; *the horn stout, curved, rather long:* chest and breast dark red; disk of the chest black, with the exception of two dark red stripes: abdomen obconical, much longer but not broader than the chest, dark red above at the base and on the sides of the second segment; beneath dark red, clothed with short tawny hairs, and adorned with a tawny hind border to each segment: legs pitchy, clothed with short black hairs; thighs clothed with tawny hairs; knees dark red; claws black; foot-cushions tawny: wings dark gray, brown at the base and beneath the fore border for three-fourths of the length and along the borders of the veins in the disk; wing-ribs and veins black; *tip cross-vein forming a slightly obtuse angle, without a stump;* posterior submarginal areolet open to the border; scales blackish; poisers white. Length of the body 8 lines; of the wings 20 lines.

———?

Tabanus redactus, Fem.

Niger, abdomine ferrugineo vitta nigra ornato, antennis fulvis, pedibus ferrugineis, alis cinereis basi et ad costam fulvis.

Body black: head thinly clothed beneath with short pale yellow hairs; crown with four shining pitchy convexities, the fourth large, occupying the space between the third and the feelers, slightly furrowed: eyes dark bronze, thinly clothed with short tawny hairs, parted above by a very broad

interval; all the facets very small: sucker pitchy; palpi yellow, with pitchy tips: feelers tawny; first and second joints clothed with short black hairs; *third with a protuberance, but no horn*: chest and breast clothed with pale yellow hairs which are longest and most numerous on the breast; a tawny spot on each side at the base of the wing: abdomen pale ferruginous, slightly obconical, a little broader and much longer than the chest, adorned with a black stripe which widens and becomes irregular towards the tip; under side not striped; fore borders of the segments towards the tip pitchy; hind borders yellow on each side: legs pale ferruginous, clothed with short tawny hairs; thighs clothed with longer hairs, black towards the base; a few black hairs towards the tips of the shanks; feet ferruginous, with pitchy tips; claws black; foot-cushions tawny: wings gray, tawny at the base and along the fore border for more than half the length; brands yellowish brown; cross-veins clouded with brown; wing-ribs ferruginous; veins black, ferruginous at the base and along the fore border; *angle of the tip cross-vein very obtuse, no stump;* scales tawny; poisers tawny, with pitchy knobs. Length of the body 6 lines; of the wings 12 lines.

TABANUS SENIOR, Fem.

Albo-rufus, abdomine fasciculis albis bivittato, antennis nigris basi fulvis, pedibus ferrugineis, femoribus albidis, tarsis piceis, alis cinereis basi costa nervorumque marginibus fulvis.

Body dull red: head white in front and beneath where it is thickly clothed with white hairs: eyes bronzed, parted above by a very narrow interval: sucker black; lancets ferruginous; palpi yellow, clothed with black hairs: feelers black; first and second joints tawny, clothed with black hairs; *third forming a very obtuse angle beneath, armed above with a very stout, moderately long, acute horn:* chest adorned with a whitish tinge, clothed on each side with a few black hairs: breast whitish, clothed with white hairs: abdomen slightly obconical, much longer than the chest, adorned with two stripes of patches of white hairs; sides and under side more thickly clothed with white hairs; legs ferruginous, clothed with short black hairs; thighs tinged with white, clothed with white hairs; feet pitchy; claws black, tawny at the base; foot-cushions pale tawny; fore-thighs and fore-feet black: wings gray, dark tawny at the base, beneath the fore border and along the borders of the veins; wing-ribs and veins

tawny, the latter pitchy towards the tips; *angle of the tip cross-vein distinct, obtuse;* scales pale dull tawny, with darker borders; poisers yellow; knobs tawny beneath. Length of the body 9 lines; of the wings 18 lines.

DICHELACERA, *Macquart.*

Dichelacera fasciata, Fem.

Fusca, capite thoracis lateribus anticis pectoreque flavis, abdominis basi segmentorum marginibus posticis ventre pedibusque fulvis, femoribus tibiisque apice et metatibiis piceis, alis sublimpidis vittis maculisque duabus fuscis.

Head pale yellow, adorned above with two shining, pitchy, club-shaped marks, whitish and clothed with white hairs beneath: sucker pitchy, black towards the tip; lancets and palpi tawny, the latter long and slender: feelers tawny at the base: eyes bronzed, parted by a moderate interval: chest brown; sides in front and breast pale yellow, clothed with pale yellow hairs; abdomen brown, obconical, much longer than the chest; first segment, hind borders of the following segments and under side tawny: legs tawny, clothed with pale tawny hairs; feet, hind-shanks and tips of the thighs and of the four front shanks pitchy; claws black: wings nearly colourless; fore border, a stripe proceeding from the base to the hind border, a large spot in the disk, and another (united with the preceding) at the tip brown; wing ribs and veins pitchy; tip cross-vein forming an obtuse angle; scales brown; poisers tawny, their knobs pitchy, with tawny tips. Length of the body 4 lines; of the wings 9 lines.

North America.

Dichelacera multifascia, Fem.

Fulva, thoracis disco nigro, abdomine fusco basi segmentorum marginibus posticis ventreque fulvis, antennis ferrugineis basi fulvis apice nigris, pedibus fulvis albido piceo nigroque cinctis, alis sublimpidis fulvo vittatis fusco trimaculatis ad costam fuscis.

Head pitchy above, bright tawny in front and beneath where it is clothed with pale yellow hairs: eyes bronzed, parted above by a moderate interval: sucker black; lancets tawny; palpi yellow, long and slender,

their tips pitchy: feelers ferruginous; first and second joints tawny, the angles of their tips produced into horns; third joint slightly convex beneath, armed above with a very long, dark ferruginous horn, which is curved downward, and extends to half the length of the compound joint; the latter is black, very slightly curved upward, shorter than the third joint: chest and breast pale tawny, clothed with yellow hairs; disk of the chest black: abdomen brown, obconical, very much longer than the chest; first segment and hind borders of the following segments tawny, clothed with yellow hairs; under side tawny: legs tawny; feet black; hind-shanks and tips of hind-thighs pitchy; fore-shanks and middle-shanks whitish, the former with pitchy tips; foot-cushions tawny; hairs varying in colour according to the parts which they clothe: wings nearly colourless, tawny beneath the fore border which is brown, adorned near the hind border with three large brown spots; the first near the base; the second in the middle, doubly connected with the third, which extends to the fore border; wing-ribs and veins pitchy; tip cross-vein forming an obtuse angle near the base; scales tawny; poisers tawny, with pale yellow knobs. Length of the body $4\frac{1}{2}$—$5\frac{1}{2}$ lines; of the wings 9—11 lines.

Para.

Dichelacera prætereuns, Plate 2, fig. 6.

Fem. *Picea, capite subtus fulvo, thorace vittis quatuor lividis ornato, antennis ferrugineis apice piceis, pedibus ferrugineis, tarsis anticis femoribusque nigris, alis fuscis limpido variis ad costam fulvis.*

Body pitchy: head dark brown above, dark tawny in front and beneath where it is clothed with tawny hairs: eyes dark bronze, parted above by a moderately broad interval; all the facets small: sucker black; lancets tawny; palpi ferruginous, long, slender: feelers dark ferruginous; first and second joints clothed with black hairs; horn nearly as long as the third joint, whence it springs, much curved downward, ending in a bristle; compound joint pitchy, hairy, hardly curved upward, much shorter than the third joint: chest adorned with four livid stripes, the side pair are indistinct: abdomen pitchy black, linear, conical towards the tip, clothed with short black hairs, twice the length of the chest; hind border of the fourth segment fringed with short white hairs: legs dark ferruginous, clothed with very short black hairs; thighs black, tinged with brown, clothed with dark tawny hairs; claws and fore-feet black; wings dark

brown, dark tawny along the fore border as far as the brand which is blackish, paler along the hind border and on the disks of the areolets; three of the latter have colourless streaks; the tip and a large spot beneath the middle of the fore border are also colourless; wing-ribs ferruginous; veins black, ferruginous at the base, tawny along the fore border and in the colourless parts of the wings; curve of the tip cross-vein very decided, but hardly angular; scales and poisers pitchy. Length of the body $6\frac{1}{2}$ lines; of the wings 14 lines.

South America.

Dichelacera vacillans, Fem.

Picea, capite antico fulvo subtus cano, pectore ventreque canescentibus abdomine nigro, segmentorum marginibus posticis lividis, antennis fulvis, apice nigris, pedibus nigris, tibiis piceis, alis cinereis, fusco fasciatis ad costam fulvis.

Body dark brown: head tawny in front, hoary and clothed with white hairs beneath; eyes bronze, parted above by a rather narrow interval; facets very small, but slightly increasing in size as they approach the inner fore border: sucker black; lancets pale ferruginous; palpi tawny, long, slender: feelers tawny; first and second joints clothed with short black hairs; tip of the second joint sharply angular; horn almost as long as the third joint whence it springs, much curved downward; compound joint black, hardly curved upward, very much shorter than the third joint: chest pitchy; breast with a hoary tinge, partly clothed with white hairs; abdomen black, very slightly decreasing in breadth towards the tip, a little broader and very much longer than the chest; hind borders of the segments livid; under side tinged with gray; legs black, clothed with short black hairs; shanks pitchy, ferruginous towards the base; foot-cushions pitchy; wings gray, dark brown at the base, dark tawny along the fore border as far as the brand which is blackish; a dark brown, very broad band beneath the brand, not extending to the hind border: the two areolets beneath the fore border, and between this band and the base, are very pale gray; wing-ribs pitchy; veins black, pitchy at the base and along the fore border; curve of the tip cross-vein slight; scales and poisers pitchy. Length of the body 5 lines; of the wings 11 lines.

Brazil.

Dichelacera sparsa, Fem.

Picea, thoracis vittis duabus ferrugineis ornato, abdomine nigro, antennis ferrugineis apice nigris, pedibus nigris alis fuscis, costa fulva, apice margine postico maculisque septem cinereis.

Body pitchy: head clothed beneath with dark tawny hairs: eyes dark bronze, parted above by a moderately broad interval; facets very small, but slightly increasing in size towards the inner fore border: sucker black, hairy; lancets pale ferruginous; palpi pitchy, thickly clothed with short black hairs: feelers dark ferruginous; first and second joints clothed with black hairs; horn nearly as long as the third joint, much curved downward; compound joint black, hardly curved upward, shorter than the third joint; chest adorned with two dark ferruginous stripes, and having a ferruginous tinge on each side; a tuft of black hairs before the base of each wing: abdomen black, slightly obconical, a little broader and much longer than the chest, clothed with short black hairs; legs black; foot-cushions tawny: wings brown, dark tawny along the fore border as far as the brand which is blackish, gray at the tips and along the hind border, adorned with seven pale gray spots of various size, one on each areolet; wing-ribs and veins mostly black; curve of the tip cross-vein distinct; scales gray, with dark tawny borders; poisers pitchy, with tawny knobs. Length of the body 6 lines; of the wings 13 lines.

Brazil.

SCEPSIS.

Silvio affinis: ocelli distincti: antennæ parvæ, simplices: alæ nervi subcostalis angulus ramulum longum demittens.

Scepsis nivalis, Plate 2, fig. 7.

Alba, thoracis vittis tribus flavo-albis ornato, abdominis segmentorum marginibus posticis fulvis, antennis piceis basi fulvis, pedibus fulvis, alis albis.

Body black, but wholly adorned with a white covering, clothed with white hairs which are mostly beneath: a slight tawny tinge in front of the eyelets which are black: eyes bronze-black, parted above by a very broad

interval; all the facets very small: sucker and palpi short, tawny: feelers tawny, small, tapering from the base to the tips; third, fourth and fifth joints pitchy: chest adorned with three slender yellowish white stripes: abdomen obconical, longer than the chest; hind borders of the segments tawny: legs tawny, covered with white bloom, clothed with whitish hairs; tips of the claws black: wings white; wing-ribs and veins pale tawny, the latter darker towards the tips; an almost right angle sending forth a long stump near the base of the tip cross-vein; scales whitish, with pale tawny borders; poisers yellow, with yellowish white knobs. Length of the body $4\frac{1}{2}$ lines; of the wings 8 lines.

South America.

CHRYSOPS, *Meigen.*

Chrysops excitans, Fem.

Nigra, capite fulvescente, abdominis maculis tribus ventreque fulvis, antennis nigris basi fulvis, pedibus nigris, tarsis posterioribus tibiisque basi ferrugineis, alis limpidis fusco vittatis et fasciatis.

Body black: head adorned with a bright tawny covering which surrounds some large black shining marks; two of these are on the crown, the first including the eyelets, the second in front of the feelers; two on the face, obclavate, united at the mouth; one on each side of the peristoma: eyes black; all the facets very small: sucker or lip black; lancets or labrum, tongue, mandibles and maxillæ tawny; palpi pitchy, ferruginous at the base: feelers black, nearly twice the length of the head, curved upward towards the tips; first, second and third joints tawny; first and second clothed with short black hairs: chest and breast clothed with tawny hairs; breast tinged with gray: abdomen slightly obconical, a little broader and much longer than the chest: a large tawny spot occupies the sides of the first and second segments: a triangular tawny spot rests on the hind border of the second segment, and is connected with the side spots; under side dark tawny; fore borders of the segments pitchy; a large black spot at the base; legs black, clothed with very short black hairs; thighs clothed with short tawny hairs; shanks and four hinder feet ferruginous towards the base; foot-cushions dark tawny: wings colourless, brown at the base, along three-fourths of the fore border, and beneath the fore border on one-fourth of the length and half of the breadth of the wing

from its base ; a broad brown band extends nearly to the hind border from the latter part of the brown on the fore border ; wing-ribs and veins pitchy, the latter partly tawny : scales grayish tawny, with darker borders ; poisers pitchy. Length of the body 4 lines ; of the wings 9 lines.

Cape Breton.

Chrysops provocans, Fem.

Nigra, capite fulvescente, antennis nigris basi fulvis, pedibus nigris, tarsis posterioribus basi ferrugineis, alis limpidis fusco vittatis et fasciatis.

Body black : covering of the head hoary above, tawny in front, including some large black shining marks which are situated like those of *C. excitans ;* the pair on the face are much larger than those of the preceding species : eyes black ; all the facets very small : sucker black ; lancets dark tawny ; palpi pitchy : feelers black, like those of *C. excitans,* but the first and second joints are clothed with hoary hairs : chest and breast tinged with gray ; a tuft of pale yellow hairs on each side at the base of the wings : abdomen slightly obconical, clothed with a very few short hoary hairs, a little broader and much longer than the chest : legs black ; shanks and feet clothed with very short black hairs ; four hinder feet dark ferruginous at the base ; foot-cushions dark tawny : wings colourless, brown at the base, along three fourths of the fore border, and beneath the fore border on one fourth of the length and half of the breadth of the wing from the base ; a broad brown band extends from the fore border and approaches nearer to the hind border than that of *C. excitans ;* wing-ribs and veins black ; scales gray with pitchy borders ; poisers pitchy. Length of the body 3½ lines ; of the wings 8 lines.

Cape Breton.

Chrysops stimulans, Mas.

Nigra, capite subtus pectore abdominisque maculis duabus basi canis, abdomine maculis trigonis fulvis trivittato, antennis pedibusque nigris, tarsis posterioribus basi tibiisque intermediis fulvis, alis limpidis nigro vittatis fusco fasciatis margine postico cinereis.

Body black : covering of the head hoary in front and beneath where it is clothed with hoary hairs ; a tawny tinge on the face, which has on

each side a large, obclavate, black, shining mark: eyes black; all the facets very small: sucker and palpi pitchy, hairy: feelers black, hairy, more than twice the length of the head: chest clothed with pale tawny hairs and on each side with black hairs; breast hoary: abdomen nearly linear, clothed with black hairs, much longer than the chest, adorned with three stripes of dull pale tawny triangular spots, the side stripes are indistinct; a large hoary spot on each side near the base: legs black, clothed with pale tawny hairs; four hinder feet towards the base and middle-shanks tawny; foot-cushions dark tawny: wings colourless, gray along the hind border, blackish along the fore border, and also for one-fourth of the length and half of the breadth from the base beneath the fore border, where they include a very small colourless spot; a very broad dark brown band extends across the wing and includes a colourless spot; wing-ribs and veins black, the latter partly tawny; scales pale tawny; poisers black. Length of the body $3\frac{1}{2}$ lines; of the wings 7 lines.

East India.

Acanthomera magnifica, Plate 1, fig. 1.

Fem. *Ferruginea, thorace vittis quinque fulvis ornato, abdomine rufo basi piceo lateribus nigris albo maculatis, antennis fulvis, pedibus flavis, femoribus piceis, tibiis apice fuscis, alis fusco-cinereis fusco maculatis basi costa nervorumque marginibus flavis.*

Head ferruginous, adorned with hoary bloom; a short horn on the hypostoma: eyes coppery, parted above by a rather broad interval; facets small: eyelets seated on a high tubercle: sucker tawny; palpi paler: feelers tawny: chest ferruginous, covered with hoary bloom, adorned with five brown stripes, of these the outer pair are slight and interrupted, the inner pair are broad, distinct, linear and converging hindward, the middle one is indistinct: breast dark ferruginous; its disk livid: abdomen red, shining, much longer than the chest, linear till near the tip which is truncated and terminates in a short black tapering tail: sides black; first segment pitchy; hind borders of the second and third adorned on each side with white triangular spots: legs bright yellow; hips and thighs pitchy; tips of the shanks pale brown; claws black, tawny at the base; hind thighs broader towards the tips, armed beneath at three-fourths of the length with a short black spine; hind-knees armed with ferruginous spines; tips of the hind-shanks dark brown: wings brownish gray, pale

yellow at the base, beneath the fore border and along the veins; some parts of the veins clouded with pale brown which forms a large irregular spot beneath the brand, the latter is dark brown; poisers ferruginous. Length of the body 21 lines; of the wings 34 lines.

South America.

ADDENDUM.

The genus Agapophytus (Voyage de la Coquille) seems to be very nearly allied to Cyclotelus, *page* 4, and some species of the latter much resemble A. Australasiæ, *Guerin*.

1851

INSECTA SAUNDERSIANA, &c.

Fam. STRATIOMYDÆ, *Latr.*

Genus ODONTOMYIA, *Meigen.*

Odontomyia histrio, Fem.

Fulva, capitis maculis quatuor piceis, thoracis vittis tribus nigris, scutello dentibus duabus ferrugineis armato, pectore viridi, abdominis disco piceo vittis duabus flavis, antennis piceis, pedibus fulvis, alis limpidis.

Head tawny, yellow beneath, adorned above with four pitchy spots, one on the tubercle of the eyelets, one at the base of the feelers, and one on each side in front of the crown: eyes red above, pitchy beneath; all the facets very small: feelers pitchy, paler beneath: *chest and breast tawny:* chest adorned with three black stripes; middle stripe widened in front; scutcheon armed with two pale ferruginous teeth: breast pale green: abdomen tawny, a little broader and longer than the chest, conical towards the tip, which is pointed; disk pitchy, adorned with two yellow stripes which extend from the base along half the length: underside pale tawny with a green tinge: legs tawny; shanks darker than the thighs; feet pitchy towards the tips: wings colourless; wing-ribs, veins and poisers tawny. Length of the body $6\frac{1}{2}$—$7\frac{1}{2}$ lines; of the wings 12—13 lines.

Brazil.

Odontomyia excocta, Fem.

Atra, capite antico rufo, scutello dentibus piceis armato, abdominis vittis duabus ventreque ferrugineis, antennis piceis rufo cinctis, pedibus nigris, alis fuscis.

Body deep black: head and chest shining: head red in front: eyes pitchy; all the facets very small: feelers dark red, pitchy at the base and at the tips: *scutcheon armed with two pitchy spines:* abdomen broader and a little shorter than the chest, ferruginous beneath, adorned above with a broad, short, ferruginous stripe on each side: legs black; foot-cushions tawny: wings very dark clear brown; wing-ribs and veins black; poisers tawny. Length of the body 4 lines; of the wings 9 lines.

——— ?

Odontomyia aterrima, Mas.

Atra, scutello inermi, abdominis lateribus segmentorum marginibus posticis ventreque ferrugineis, antennis piceis, pedibus nigris, tarsis piceis basi fulvis, alis fuscis apice fulvis.

Body very deep black: head shining: eyes meeting on the crown, pitchy and composed of small facets beneath, coppery and of larger facets above: mouth black: feelers pitchy, paler towards the base, which is black: chest clothed with short black hairs; *scutcheon unarmed:* abdomen shining, a little broader and longer than the chest; underside pitchy, sides and hind borders of its segments ferruginous: legs black; knees ferruginous; feet pitchy, pale tawny at the base: *wings brown for full two-thirds of the length from the base, pale tawny from thence to the tips*, the outline of each colour distinctly marked; brands dark brown; wing-ribs, veins and poisers pitchy. Length of the body $3\frac{1}{4}$ lines; of the wings $6\frac{1}{2}$ lines.

Brazil.

Odontomyia picea, Mas.

Picea, capite fulvo, scutelli margine postico ferrugineo dentibusque duabus ferrugineis armato, abdominis lateribus ventrisque vitta viridescentibus, antennis nigris, pedibus fulvis, tarsis posticis piceis, alis limpidis.

Body pitchy, clothed with tawny hairs: head tawny, shining: eyes red; all the facets small: mouth and feelers black: *hind border of the*

scutcheon ferruginous, armed with ferruginous teeth: abdomen a little longer and broader than the chest, greenish on each side; underside adorned with an indistinct greenish stripe: legs tawny; hind-feet pitchy, tawny towards the base: wings colourless; wing-ribs, veins and poisers tawny. Length of the body 4 lines; of the wings 8 lines.

Van Diemen's Land.

ODONTOMYIA EXUL, Fem.

Nigra, scutello inermi, abdominis apice fulvo, antennis nigris, pedibus piceis, tarsis fulvis, alis albidis.

Body black, dull, covered with tawny down: head somewhat lengthened in front: eyes pitchy: feelers black; first and second joints of equal length; third shorter: *scutcheon unarmed:* abdomen finely punctured, a little longer and much broader than the chest; tip tawny: legs pitchy; feet tawny: *wings whitish;* wing-ribs tawny; veins yellow; poisers whitish yellow. Length of the body 3 lines; of the wings 6 lines.

——— ?

ODONTOMYIA SOLENNIS, Mas.

Ænea, scutelli margine postico fulvo dentibus duabus flavis armato, abdomine viridi apice fulvo vittaque picea ornato, antennis pedibusque fulvis, alis albidis.

Body brassy: head black, clothed beneath with white hairs; sides of the peristoma yellow: eyes red and composed of large facets above, brassy black and of very small facets beneath: mouth pitchy: feelers dark tawny, paler towards the base: chest and breast clothed with short tawny hairs; hind borders of the scutcheon tawny, *armed with two yellow spines: addomen pale green*, a little broader but not longer than the chest, tawny towards the tip, adorned above with a pitchy stripe which widens towards the tip: legs pale tawny: wings whitish; wing-ribs and veins yellow; poisers tawny, with apple-green knobs. Length of the body 3 lines; of the wings 6 lines.

East India.

Genus NEMOTELUS, *Geoffroy*.

Nemotelus capensis, Mas et Fem.

Niger, abdominis vitta maculisque duabus ferrugineis, apice fulvo, pedibus fulvis, alis albidis.

Male. Body black, shining, very thickly clothed with hoary hairs: head and chest thickly clothed with black hairs: eyes bronzed: a slender ferruginous streak and a large ferruginous spot on each side of the abdomen, whose tip is tawny: legs pale tawny; tips of the fore-feet darker; wings whitish; wing-ribs, veins and poisers yellow.

Fem. Body thinly clothed with hairs: eyes red, not hairy: abdomen not spotted.

Length of the body 2½ lines; of the wings 6 lines.

Cape.

Nemotelus advena, Fem.

Ænea, capitis fascia thoracisque vittis duabus flavis, abdomine ferrugineo lateribus apiceque piceo variis, antennis fulvis apice nigris, pedibus fulvis, alis limpidis.

Body brassy: head covered with hoary down: an interrupted, slender, yellow band in front of the crown above the feelers: eyes red: mouth tawny: feelers tawny, with black tips: chest and breast covered with tawny down: a slender yellow stripe on each side of the chest: abdomen pale ferruginous, partly pitchy along each side and towards the tip: legs tawny: wings colourless; wing-ribs and veins tawny; poisers yellow. Length of the body 2½ lines; of the wings 4½ lines.

——— ?

BIASTES, n. g.

Caput anticum subproductum: antennæ capite multò longiores; articulus 1us 2o duplò longior; 3us et sequentes arctè cohærentes; ultimus gracilis, linearis, præcedentibus longior.

Head slightly lengthened in front: feelers slender, much longer than the head; second joint about half the length of the first; third and following closely united, forming a conical compound joint; last joint slender, linear, longer than all the preceding.

BIASTES INDICUS, Plate 3, fig. 3.

Mas. *Niger, scutelli margine postico fulvo dentibus quatuor fulvis ornato, antennis piceis basi fulvis, pedibus fulvis, tarsis flavis, femoribus posticis piceis, alis subcinereis ad costam apice fuscis.*

Male. Body black, dull, without hairs, but covered with very short tawny down: face tinged with white: eyes bronzed, occupying the whole upper side; facets large above, very small in front: mouth tawny: feelers pitchy, tawny at the base: chest long and narrow, convex, spindle-shaped; hind border of the scutcheon tawny, armed with four short tawny teeth: abdomen elliptical, finely punctured, much broader but not longer than the chest: legs tawny; feet pale yellow; hind thighs pitchy: wings pale gray, brown beneath the tip of the fore border; wing-ribs and brands tawny; veins strongly marked, in structure like those of *Clitellaria*, pitchy, tawny along the fore border; poisers pitchy.

Fem. Eyes parted by a moderately broad interval, which is smooth and shining; all the facets very small: head very slightly lobed above on each side behind the eyes.

Length of the body 3 lines; of the wings 5 lines.

——— ?

METABASIS, n. g.

Caput anticum valdè productum, conicum: antennis articulus 1us subfusiformis; 2us obconicus, 1i longitudine; 3us et sequentes arctè cohærentes, articulum unicum fusiformem 2o fere quadruplo longiorem quasi fingentes.

Front of the head produced into a slender cone, which is as long as the preceding part and bears the feelers on its tip: first joint of the feelers nearly spindle-shaped; second obconical as long as the first; third, and all the following forming a compound, indistinctly divided joint, nearly four times the length of the second joint, and of a lengthened spindle-shaped form.

METABASIS ROSTRATUS, Mas.

Niger, thoracis lateribus viridi vittatis, scutelli margine postico ferrugineo dentibusque duabus ferrugineis armato, antennis nigris apice piceis, pedibus ferrugineis, tarsis piceis, alis nigro-fuscis.

Body black, long and narrow, rather flat: head shining, tawny beneath; its cone slightly furrowed across: eyes red, nearly meeting on the crown,

divided into two regions, the lower pitchy and composed of very small facets, the upper red, slightly bronzed, composed of rather large facets: mouth black: feelers black; first and second joints shining; compound joint dull, pitchy: chest rather long, covered with brown down, having a pale green stripe on each side; hind border of the scutcheon ferruginous, armed with two ferruginous teeth: abdomen flat, nearly spindle-shaped, covered with brown down, much longer and a little broader than the chest: legs ferruginous; feet pitchy, tawny towards the base; wings very dark brown; wing-ribs and veins black; poisers pitchy, their knobs green beneath. Length of the body 5 lines; of the wings 8 lines.

Brazil.

Genus CHRYSOCHLORA, *Latr.*

Chrysochlora plana, Fem.

Fulva, thorace vittis tribus piceis, abdomine nigro ventre vittisque fulvis, antennis ferrugineis, pedibus flavis, femoribus fulvis, alis subcinereis ad costam fulvis disco sublimpidis.

Head pale tawny, or yellow, clothed with pale tawny hairs, and on the crown with a few black hairs: a pitchy streak extending from the eyelets nearly to the feelers: eyes black, slightly adorned with iridescent colours; facets small: mouth tawny: feelers ferruginous, in structure like those of *C. exclamans:* bristle black, tawny at the base: *chest and breast dark tawny:* chest adorned with three pitchy stripes; fore border of the scutcheon and part of the breast pitchy: abdomen black, nearly elliptical, a little longer and broader than the chest, adorned with one entire and four interrupted short, tawny stripes; underside pale tawny, pitchy towards the tip: legs pale yellow; thighs tawny; claws black, yellow at the base: wings pale gray, tawny beneath the fore border, almost colourless in the disk, wing-ribs, veins and poisers tawny. Length of the body 6—6½ lines; of the wings 14—15 lines.

Columbia.

Chrysochlora? tincta, Fem.

Nigra, abdominis apice ferrugineo, tibiis posticis basi tarsisque flavis, alis cinereis ad costam fulvis.

Body black, dull: head prominent and rugulose in front, clothed above with black hairs, beneath with pale tawny hairs: eyes black, thinly

clothed with short pale hairs: sucker black, clothed with pale tawny hairs. first and second joints of the feelers black; second not half the length of the first: chest clothed with tawny hairs: abdomen slightly increasing in breadth from the base till near the tip, longer, but hardly broader than the chest, ferruginous towards the tip, clothed with tawny hairs, which form bands on the hind borders of the segments: legs black, covered with yellow down; hind shanks towards the base and feet yellow; claws black: wings dark gray, tawny beneath the fore border for three-fourths of the length from the base; wing-ribs and veins ferruginous; veins black in the gray parts of the wing; poisers tawny. Length of the body $5\frac{1}{2}$ lines; of the wings 12 lines.

Columbia.

Genus SARGUS, *Meigen.*

Sargus debilis, Mas.

Viridis, capitis macula flava, thoracis disco purpureo-cyaneo, scutelli apice purpureo, abdomine fulvo apice subæneo, antennis pedibusque fulvis, alis limpidis.

Body bright green: head yellow and clothed with pale yellow hairs at the base of the feelers: eyes pitchy; facets small, somewhat larger in front than elsewhere: mouth pale tawny: feelers tawny; bristle pitchy: disk of the chest purplish-blue; tip of the scutcheon purple: abdomen pale tawny, longer than the chest, increasing in breadth from the base towards the tip, where the disks of the segments are more or less bronzed: legs pale tawny: wings colourless; wing-ribs tawny; veins pitchy, tawny at the base and along the fore border; poisers tawny. Length of the body 4 lines; of the wings 8 lines.

United States.

CACOSIS, n. g.

Antennis articulus 3us longus; seta basi crassa, nigro pubescens.

Third joint of the feelers longer than that of *S. Vespertilio;* bristle thick and clothed beneath towards the base with black down.

Cacosis niger, Plate 3, fig. 1.

Sargus niger, *Wied.*

——— ?

Genus PTILOCERA, *Wiedemann.*

Ptilocera continua, Plate 3, fig. 2.

Fem. *Cyanea, thoracis lateribus purpureo variis, antennis nigris septemramosis, apice albis, pedibus piceis, alis fuscis margine postico cinereis.*

Body dark blue: head slightly covered in front with hoary down: eyes pitchy; all the facets small: mouth black: feelers black, white towards the tips, adorned with seven feathered branches: chest adorned on each side with purple reflections: abdomen much broader but not longer than the chest, slightly covered towards the tip with hoary down: legs pitchy: wings dark brown, gray along the hind border, which is almost colourless at the base; wing-ribs, veins and poisers pitchy. Length of the body 3½ lines; of the wings 8 lines.

Java.

Fam. ASILICI, *Latr.*

The following twenty-four genera have been formed of this family; Dioctria, Microstylum, Discocephala, Brachyrhopala, Dasypogon, Rhopalogaster, Xiphocera, Laphystia, Laphria, Lampria, Hoplistomera, Megapoda, Ceraturgus, Craspedia, Mallophora, Promacha, Polyphorius, Trupanea, Asilus, Erax, Protacanthus, Ommatius, Damalis, Atomosia and Leptogaster.

The European species of Dasypogon have been divided by Loew into the following seventeen groups: Saropogon, Dasypogon, Stenopogon, Habropogon, Xiphocerus, Holopogon, Eriopogon, Heteropogon, Isopogon, Oligopogon, Stichopogon, Lasiopogon, Cyrtopogon, Anarolius, Acnephalum, Pycnopogon and Crobilocerus.

His divisions of European Asili comprise the following sixteen groups: Lophonotus, *Macq*, Eutolmus, Machimus, Mochtherus, Cerdistus, Stilpnogaster, Itamus, Tolmerus, Epitriptus, Antiphrisson, Asilus, Rhadiurgus, Pamponerus, Antipalus, Echthistus and Philonicus.

In these descriptions I have separated from Dasypogon the following six genera, which, with the exception of the first, are characterized; Megapollyon, Cabasa, Prolepsis, Euarmostus, Pseudorus and Morimna.

Nusa, Acurana, Scandon and Chærades, are allied to Laphria; Phellus is allied to Mallophora; Cormansis to Atomosia; and Pheneus is most remote from the general structure of the family.

Genus DIOCTRIA, *Meigen.*

Dioctria Tasmanica, *Saunders' MSS.*

Fem. *Nigra, thoracis lateribus pectoreque ferrugineis, abdomine piceo lateribus ferrugineis, antennis pedibusque nigris, tibiis basi flavis, alis limpidis fusco vittatis et maculatis.*

Body black, shining: head clothed with black hairs and bristles, adorned in front and behind with a hoary covering; two black triangular spots on the face; epistoma adorned with a row of white bristles: sucker black, clothed with black hairs: eyes black; fore part rather flat, all the facets small: sucker black, clothed with black hairs; palpi black, beset with black bristles: feelers black, much longer than the head: chest ferruginous on each side: breast ferruginous, adorned with a hoary covering: abdomen pitchy, ferruginous along each side, thinly clothed with short hoary hairs, more thickly covered with longer hairs at the tip beneath, much more than twice the length of the chest, slender and linear near the base, spindle-shaped and a little broader from thence to the tip: legs black, clothed with very short black hairs, beset with a few black bristles; shanks bright yellow towards the base; foot-cushions tawny: *wings colourless, brown along the fore border to the tip, where this band is forked, it includes in the middle part of its length a colourless streak, beneath which there is a large irregular darker brown spot;* wing-ribs and veins black; poisers bright pale yellow. Length of the body 7 lines; of the wings 14 lines.

Van Diemen's Land.

Dioctria tenuis, Fem.

Nigra, thoracis lateribus pectoreque albo-fulvis, abdomine rufo aut nigro, palpis rufis, antennis nigris, pedibus fulvis, alis limpidis fulvo subvariis.

Body black, shining: head slightly metallic, adorned in front with a tawny covering, which has a white lustre; epistoma armed with a few long white bristles: eyes iridescent; fore part flat, composed of large facets: sucker black, red towards the base; palpi red, beset with long black bristles: feelers black; first and second joints beset with black bristles: breast and sides of the chest tawny, adorned with white lustre: abdomen dark red, or black with a red base, slender, about thrice the length of the chest, narrow and linear near the base, somewhat spindle-shaped from thence to the tip; fourth, fifth and sixth segments blackish, with a hoary tinge: legs tawny, slender; thighs sometimes with a pitchy tinge here and there; shanks and feet fringed with very short tawny hairs; shanks beset with tawny bristles; feet beset with black bristles, darker and sometimes ferruginous towards the tips; claws black: *wings colourless, more or less tinged with tawny, which is most apparent at the base, beneath the fore border and along the veins;* wing-ribs tawny; veins pitchy, tawny at the base and along the fore border; poisers yellow, their tips sometimes pitchy. Length of the body $5\frac{1}{2}$—6 lines; of the wings 10—$11\frac{1}{2}$ lines.

South America.

Dioctria Horsleyi, *Saunders' MSS.*

Fem. *Nigra, aurata, thorace vittis quinque aureis ornato, pectore argenteo, abdominis apice fascia aurea ornato, antennis nigris basi piceis, pedibus nigris, femoribus tibiisque basi fulvis, tarsorum articulis basi ferrugineis, alis subfuscis cellularum discis obscurioribus.*

Body black, shining: head adorned with a gold covering in front, white and beset with a cross row of black bristles behind the eyes, clothed with white hairs behind and beneath; a few black hairs on each side of the crown and on the region of the eyelets: eyes black; fore part flat, composed of large facets: sucker black, pitchy at the base; palpi black, beset with long black bristles: feelers black; first and second joints pitchy, clothed with black hairs: chest adorned with five golden stripes, the mid-

dle stripe slender and entire, the two on each side broad, irregular, united at each end: breast adorned with silvery lustre, clothed with white hairs: abdomen black, shining, narrower than the chest, and more than twice its length; *a broad, bright, golden band near the tip:* legs black, shining; hips tawny, adorned with silvery lustre, clothed with white hairs; thighs bright tawny at the base, clothed with very few white hairs; shanks and feet fringed with short black hairs, armed with black bristles; shanks bright tawny towards the base, this colour prevails most in the hind-shanks; tips of the joints of the feet, especially of the fore-feet, ferruginous towards the base; claws black, tawny at the base; foot-cushions tawny: wings pale brown; disks of the areolets darker at the tips, and beneath two-thirds of the length of the fore border and from thence towards the base; wing-ribs pitchy; veins black, dark tawny at the base; poisers bright yellow. Length of the body 6½ lines; of the wings 12 lines.

——— ?

Genus DASYPOGON, *Meigen.*

Dasypogon Carbo, Fem.

Ater, capite antico argenteo spinis albis armato, pectore abdominisque segmentorum 2i et 3i marginibus posticis canis, antennis pedibus alisque nigris.

Body black, dull: head clothed beneath with white hairs: face covered with silvery-white down; epistoma armed with about twelve white spines: eyes black; fore part nearly flat, its facets larger than those elsewhere: lip black, clothed towards the tip with short tawny hairs: palpi black, beset with black bristles: feelers black, first and second joints beset with short black bristles; third nearly linear, twice the length of the first and the second: breast hoary, partly clothed with white hairs: abdomen decreasing in breadth from the base to the tip, about twice the length of the chest; hind borders of the second and third segments hoary on each side; fourth and fifth segments mostly red above; tip shining: legs black, armed with black spines; foot-cushions tawny: wings blackish; wing-ribs and veins black; poisers yellow. Length of the body 7½ lines; of the wings 12½ lines. Near allied to *D. punctatus.*

Hunter's River.

Dasypogon spectans, Mas.

Ferrugineus, capite abdomineque fulvis, abdominis basi et segmentorum marginibus posticis nigris, antennis pedibusque ferrugineis, alis subfulvis apice margineque postico subcinereis.

Head tawny, adorned in front with a golden covering, beset behind the eyes with a row of red bristles; epistoma thickly armed with pale yellow spines: eyes bronzed, flat, and composed of large facets in front: sucker black: palpi tawny, clothed with ferruginous bristles: feelers ferruginous; first and second joints beset with black bristles: *chest ferruginous;* sides and breast paler: *abdomen bright tawny*, narrower than the chest and more than twice its length, tapering from the base to the tip, which is clothed with a tuft of ferruginous hairs; first and second segments black, the former having on each side an angular, tawny spot, which is clothed with ferruginous hairs; hind borders of the following segments adorned with black bands, which are angular in the middle and successively decrease from the third to the seventh segment: legs ferruginous, armed with black spines; feet darker towards the tips; claws black; foot-cushions tawny; tip-spines of fore-shanks black, curved: wings pale tawny, grayish towards the tips and along the hind borders; wing-ribs, veins and poisers ferruginous. Length of the body 17 lines; of the wings 22 lines.

Dasypogon rapax, Mas.

Ferrugineus, capite fulvo-fusco, thorace subvittato, pectore cano, abdomine nigro pilis albis quadrifasciato, antennis nigris, pedibus piceis, tarsis posticis nigris, alis flavo-fuscis.

Head dark brown, beset with a few black bristles, adorned with a tawny covering, clothed beneath with white hairs; epistoma armed with about sixteen white spines: eyes bronzed; fore part flat, composed of large facets: sucker and palpi black, the latter beset with tawny bristles: feelers black; second joint at the tip, third at the base and partly beneath dark tawny; first and second joints beset with black bristles; third clothed with black hairs, flat above, slightly convex beneath, longer than the first and the second; chest beset with black bristles, *adorned with a dark ferruginous covering*, which is indistinctly striped: breast hoary: *abdomen deep black*, tapering from the base to the tip, narrower than the chest

and rather more than twice its length, adorned with four bands of long white hairs, one on each segment from the first to the fourth; a tuft of black bristles at the tip: legs pitchy, armed with black spines; claws and hind-feet black; tip-spines of fore-shanks short, curved, ferruginous, with black tips: wings clear, pale yellowish brown; wing-ribs and veins ferruginous; poisers dark tawny. Length of the body 14½ lines; of the wings 23 lines.

South America.

Dasypogon letifer, Mas.

Fuscus, capite fulvo, thorace trivittato, lateribus flavis, abdomine ferrugineo apice piceo, antennis basi fulvis, pedibus ferrugineis, alis subfuscis basi et ad costam fulvis cellularum discis subcinereis.

Head tawny, beset with a few black bristles; epistoma armed with a few white spines: eyes bronzed; fore part nearly flat, its facets a little larger than those elsewhere: sucker black; palpi dark tawny, clothed with long black hairs: first and second joints of the feelers tawny, beset with black bristles: *chest and breast brown;* sides pale yellow, which colour also forms a stripe on each side of the chest, *whose disk has three indistinct paler stripes; abdomen ferruginous*, slightly increasing in breadth from the base to the tip, narrower than the chest and more than twice its length, pitchy towards the tip: legs ferruginous, armed with tawny spines; feet darker; claws black; foot-cushions tawny; tip-spines of fore-shanks stout, short, curved: wings pale brown, tawny towards the base and along the fore border; disks of the areolets more or less pale gray, which colour appears most towards the hind border; wing-ribs ferruginous; veins pitchy; poisers yellow with ferruginous knobs. Length of the body 11 lines; of the wings 18 lines.

Caffraria?

Dasypogon castigans, Fem.

Fuscus, capite flavo, thorace nigro quadrivittato, lateribus pectoreque albido-flavis, abdomine antennis pedibusque ferrugineis, alis cinereis basi, et ad costam flavo-fuscis.

Head adorned with a yellow covering, clothed beneath with a few black hairs, beset behind the eyes with a row of black bristles; epistoma armed with six or eight black spines: eyes bronzed; fore part flat, com-

posed of large facets: sucker and palpi black, the latter beset with black hairs: first and second joints of the feelers pale ferruginous, beset with black bristles; third joint darker: *chest velvet-like brown, adorned with four black stripes*, the middle pair long and slender, the outer pair short and broad; sides silky, whitish-buff, which colour also adorns some parts of the yellowish-brown breast: *abdomen ferruginous*, a little narrower than the chest and more than twice its length, darker towards the base with the exception of the hind borders of the segments, tapering from the base to the tip, which is shining: legs ferruginous, armed with black spines; claws black; foot-cushions tawny; tip-spines of fore-shanks stout, curved, with black tips: wings gray, yellowish-brown at the base and along the fore border; wing-ribs ferruginous; veins black; poisers pitchy. Length of the body 10 lines; of the wings 18 lines.

South America.

Dasypogon examinans, Fem.

Fulvus, capite flavo, pectore cervino, antennis pedibusque fulvis, alis cinereis ad costam subfulvis, basi nervorumque marginibus nonnullis sublimpidis.

Head a little broader than the chest, adorned with a yellow covering, beset behind the eyes with a fringe of black bristles; epistoma armed with about sixteen white spines: eyes bronzed; fore part flat, its facets unusually large; sucker black; palpi black, clothed with black bristles: feelers tawny; first and second joints beset with black bristles; third spindle-shaped, clothed with a few black hairs, darker and a little longer than the first and the second: *chest tawny*, beset along each side with black bristles: *sides and breast fawn-colour: abdomen tawny*, a little narrower than the chest and rather more than twice its length, tapering from the base to the tip, which is armed with tawny spines: legs tawny, clothed with short tawny hairs and with black spines; claws and tips of the feet black, the former tawny at the base; foot-cushions yellow; tip-spines of the fore-shanks black, curved: wings gray, with a tawny tinge beneath the fore border, almost colourless at the base and along the borders of some of the veins in the disk; wing-ribs tawny; veins black, tawny at the base and along the fore border; poisers tawny. Length of the body 10 lines; of the wings 20 lines

Para.

Dasypogon inserens, Mas.

Piceus, capite, thoracis vittis tribus lateribus scutello metathorace pectore abdominisque fasciis flavis, antennis piceis basi fulvis, pedibus ferrugineis, femoribus nigro vittatis, alis fulvis apice margineque postico cinereis.

Head adorned with a yellow covering, beset behind the eyes with a fringe of black bristles; crown pitchy, shining; epistoma armed with about twenty white spines: eyelets tawny: eyes bronzed; fore part flat and composed of very large facets: sucker black; palpi dark tawny, beset with black bristles: feelers dark tawny; first and second joints beset with black bristles; third pitchy, clothed with a few black hairs, tawny at the base, slightly spindle-shaped, nearly twice the length of the first and the second joints: *chest pitchy*; *three stripes*, *sides*, *scutcheon*, *hind part and breast mostly yellow*: *abdomen pitchy*, narrower than the chest and less than twice its length, tapering from the base to the hind border of the second segment, slightly spindle-shaped from thence to the tip, beset with black bristles on each side of the base, adorned with yellow bands; the first broad, on the first and second segments; the second and third rather narrow, on the hind borders of the second and third segments; the fourth very narrow on the hind border of the fourth segment; tip clothed with brown hairs; legs dark ferruginous, armed with black spines; thighs streaked with black; claws and tips of feet black; tip-spines of fore-shanks black, very much curved; foot-cushions yellow: wings dark tawny, paler on the disk, gray at the tips and along the hind border till near the base, where they are paler; wing-ribs and veins ferruginous; poisers tawny, with yellow knobs. Length of body 10 lines; of the wings 18 lines.

—— ?

Dasypogon occidens, Mas.

Niger, auratus, thorace vittis duabus ferrugineis ornato, abdomine ferrugineo vittis aureis et piceis ornato, antennis rufis, pedibus fulvis, alis cinereis, nervorum marginibus subfulvis.

Head adorned with a golden covering; a row of tawny bristles behind the eyes; crown pitchy, shining, beset with black bristles; epistoma armed with about twenty white bristles: eyes bronzed; fore part flat, the facets

much larger than those elsewhere: sucker ferruginous; palpi tawny, beset with long tawny bristles: feelers pale red; second joint clothed with very few black hairs; third slightly club-shaped, a little broader and nearly twice the length of the first and second joints: *chest and breast black, mostly adorned with a golden covering; the former with two ferruginous stripes*, beset on each side with a few black bristles: abdomen narrower than the chest and less than twice its length, obconical till the hind border of the second segment, spindle-shaped from thence to the tip; *first and second segments ferruginous; third ferruginous for half the length from the base, next traversed by a pitchy band, golden towards the tip; fourth pitchy, with a golden hind border; fore half of the fifth pitchy, hind half golden; the following golden;* hind border of the sixth slightly pitchy; tip tawny, clothed with pale yellow hairs; legs tawny, clothed with short tawny hairs, armed with black spines: claws black; foot-cushions yellow; tip-spines of fore-shanks black, much curved: wings gray, with a tawny tinge along the borders of the veins; wing-ribs and veins ferruginous; poisers yellow. Length of the body 7 lines; of the wings 14 lines.

——— ?

Dasypogon festinans, Mas.

Ferrugineus, capite aureo, thoracis disco, abdominisque basi nigris, antennis fulvis, pedibus ferrugineis, alis fulvis margine postico sublimpidis.

Head adorned with a golden covering, beset behind the eyes with a row of tawny bristles; crown pitchy, shining, beset with black bristles; epistoma beset with eight or ten pale yellow bristles: eyes black; fore part flat, its facets larger than those elsewhere: sucker black; palpi tawny, clothed with yellow hairs: feelers tawny: first and second joints beset with black bristles; third spindle-shaped, longer than the first and the second: *chest and breast ferruginous; disk of the former mostly black: abdomen ferruginous*, shining, narrower than the chest, and more than twice its length, obconical from the base to the hind border of the second segment, linear along the third segment, spindle-shaped from thence to the tip: *base of the abdomen, and sides of the first, second and third segments mostly black;* tip clothed with tawny hairs; legs ferruginous, armed with ferruginous spines, clothed with short tawny hairs; claws black, tawny at the base; foot-cushions pale tawny; tip-spines of fore-shanks ferruginous, curved: wings tawny, nearly colourless along the hind border, with the exception

of the borders of the veins; wing-ribs and veins black; poisers yellow. Length of the body 7 lines; of the wings 13 lines.

Dasypogon videns, Fem.

Piceus, flavescens, thorace vittis duabus flavis ornato, abdomine ferrugineo basi piceo, ventre maculis piceis, antennis ferrugineis basi fulvis, pedibus ferrugineis tibiis basi fulvis, alis sublimpidis ad costam subfulvis.

Head adorned with a whitish yellow covering, beset behind the eyes with a row of black bristles; crown pitchy; epistoma beset with two pale yellow bristles and with a few pale yellow hairs: sucker and palpi black; palpi beset with black bristles: eyes bronzed; fore part flat, composed of large facets: feelers pale tawny; first and second joints beset with short black bristles; third ferruginous, pale tawny at the base, spindle-shaped, broader and a little longer than the first and second joints; *chest and breast pitchy, tinged with pale buff; the former darker than the latter, and adorned with a yellow stripe along each side: abdomen ferruginous, pitchy here and there beneath and at the base*, a little narrower than the chest and about twice its length, linear from the base to the hind border of the third segment, spindle-shaped from thence to the tip: legs ferruginous, clothed with short ferruginous hairs, armed with ferruginous spines; shanks tawny towards the base; claws black, ferruginous at the base; foot-cushions tawny: wings nearly colourless, with a slight tawny tinge beneath the fore border; wing-ribs tawny; veins pitchy, tawny at the base and along the fore border; poisers tawny. Length of the body 6 lines; of the wings 12 lines.

Africa.

Dasypogon tristis, Mas.

Ater, abdomine nigro-cinereo, antennis nigris basi piceis, pedibus nigris, alis nigro-purpureis.

Body deep black: head clothed with black hairs, adorned with a hoary covering, beset with black bristles, which form a fringe behind the eyes: face and epistoma thickly armed with black spines: eyes black; fore part nearly flat, its facets a little larger than those elsewhere: sucker black,

ferruginous and clothed with tawny hairs at the tip; palpi black, beset with black bristles: feelers black; first and second joints beset with a very few black bristles; first at the tip and second pitchy; third nearly linear, about thrice the length of the first and the second: neck armed with a fringe of black bristles: chest clothed with black hairs and bristles: abdomen a little narrower and very much longer than the chest, *slightly tinged with gray*, clothed with black hairs, beset on each side of the base with black bristles, linear for half the length from the base, a little broader and very slightly spindle-shaped from thence to the tip, which is clothed with hoary hairs: legs black, very thickly clothed with black hairs, armed with black spines; claws pale tawny towards the base; foot-cushions tawny; fore-shanks unarmed: wings black, adorned with a purple lustre; wing-ribs and veins black; poisers bright tawny. Length of the body 8 lines; of the wings 16 lines.

United States.

Dasypogon insertus, Fem.

Fuscus, capite fulvo pubescente, thorace vittis tribus canis duabusque fuscis ornato, abdomine nigro-piceo basi fulvo, antennis nigris, pedibus fulvis, alis fuscis disco limpidis posticè cinereis.

Head covered with tawny down, which has a whitish hue on the sides and fore part of the face; the disk of the latter is black, shining, and encircled with brown; crown black, shining, beset with black bristles; epistoma armed with six white spines; a row of black bristles behind the eyes: eyes bronzed; fore part flat, composed of large facets: sucker black, clothed at the tip with tawny hairs: palpi tawny, beset with black bristles: feelers black; first and second joints beset with black bristles; third spindle-shaped, beset above with short black bristles: *chest and breast brown;* neck and sides of the chest beset with black bristles; *disk of the chest hoary, with the exception of a brown stripe, which is inlaid with a slender, hoary stripe; scutcheon and hind chest tawny*, adorned with a silky, yellow lustre; breast adorned on each side with a hoary band: abdomen pitchy-black, about twice the length of the chest, obconical from the base to the hind border of the second segment; spindle-shaped from thence to the tip; first, second and third segments pale tawny; hind border of the third pitchy; tip armed with black spines: legs tawny, clothed with short black hairs, armed with black spines; claws black; tip-spines of fore-shanks

curved: wings brown along the fore border, gray along the hind border; an almost colourless streak extends from the hind border at the base along two-thirds of the disk, where it is interrupted, and appears again in a round spot nearer the tip; wing-ribs ferruginous; veins black, ferruginous at the base and along the fore border; poisers tawny, with yellow tips. Length of the body 9 lines; of the wings 16 lines.

Para.

Dasypogon inclusus, Mas.

Albido-flavus, thorace vittis tribus nigris ornato, abdomine fulvo, antennis basi pedibusque flavis, alis limpidis apice subcinereis.

Head broader than the chest, adorned with a whitish covering, beset behind the eyes with a row of black bristles, adorned beneath with a few white hairs; two black bristles on the tubercle of the eyelets; epistoma armed with six or eight white spines; eyes bronzed; fore part flat, its facets very large: sucker black, clothed at the tip with whitish hairs; palpi pitchy, beset with black bristles; first and second joints of the feelers beset with black bristles; first joint pale yellow; second tawny: *chest and breast whitish yellow; disk of the chest black, excepting two whitish stripes, which are curved outward in front: abdomen tawny*, linear, much narrower than the chest and rather less than twice its length: legs yellow, thinly clothed with very short black hairs, armed with black bristles and spines; fourth and fifth joints of the feet ferruginous; pulvilli yellow; claws black, tawny at the base; tip-spines of fore-shanks much curved: wings colourless; tips pale gray; wing-ribs tawny; veins black, tawny at the base; poisers tawny. Length of the body 4 lines; of the wings 9 lines.

Para.

Dasypogon basalis, Mas.

Ferrugineus, capite aureo, thorace vittis duabus nigris ornato, abdominis lateribus albo nigroque maculatis, antennis ferrugineis, pedibus fulvis, femoribus rufescentibus, tarsis basi flavis, alis subcinereis fulvo variis.

Body ferruginous: head adorned with a bright gold-coloured covering, having a few black hairs on each side of the crown, and a few tawny

hairs beneath; hind part armed with black spines in the middle, and with a row of black bristles on each side; a few very short black hairs on the middle of the face, which is not prominent, but is armed on the epistoma with numerous bright tawny spines: eyes black; fore part nearly flat, its facets larger than those elsewhere: sucker and palpi black, the latter beset with long black bristles: feelers ferruginous; first and second joints beset with long black bristles; second much longer than the first; third slightly spindle-shaped, much longer than the first and the second, beset above with short black bristles: chest thinly clothed with short black hairs, armed with some black spines and bristles on each side and behind; *disk dark ferruginous, with two slender black stripes:* abdomen bright ferruginous, clothed with short black hairs, rather more than twice the length of the chest, tapering from the base to the tip, which is shining and beset with black bristles; *a black and white spot on each side of every segment:* legs tawny, clothed with short black hairs, armed with black spines; thighs reddish; feet darker towards the tips; first joint yellow; claws black; foot-cushions yellow; tip-spines of fore-shanks black, much curved: wings rather short, very light gray, tinged with dark tawny at the base, on the fore border and along the borders of the veins in the disk; wing-ribs and veins ferruginous; poisers yellow. Length of the body 10 lines; of the wings 14 lines.

United States.

Dasypogon imbutus, Fem.

Nigra, capite pectoreque fulvescentibus, thoracis vittis quatuor pallidis, abdomine nitido striato basi cano, antennis nigris, pedibus rufis, genubus tibiis apice tarsisque nigris, alis fuscis ad costam cinereis.

Body black: head adorned with a dark tawny covering, beset on each side of the crown and behind the eyes with black bristles; epistoma armed with a few black spines and bristles: eyes bronzed; fore part flat, composed of very large facets: mouth and feelers black: first and second joints of the feelers beset with black bristles: chest black, clothed with black hairs, *adorned with four pale tawny stripes*, of which the middle pair are very indistinct; sides armed with a few black spines; breast dark brown, partly tawny: abdomen slightly tapering from the base to the tip, a little narrower than the chest and nearly twice its length; *first, second and third segments hoary;* the following shining, striated across; tip armed

with a circlet of black spines: legs red, armed with black spines; knees, tips of shanks and feet black: *wings dark brown*, adorned with coppery-purple lustre, dark gray beneath the fore border; wing-ribs and veins black; poisers tawny. Length of the body 12 lines; of the wings 23 lines.

East India.

Dasypogon Apiformis, Mas.

Niger, fulvo tectus, abdomine lineari, antennis pedibusque nigris, tibiis fulvis, tarsis piceis, alis fuscis.

Body black, adorned with a tawny covering, thickly clothed with tawny hairs: hind part of the head fringed with whitish hairs; face and epistoma thickly clothed with pale yellow hairs: eyes pitchy: fore part flat, its facets very large: sucker and feelers black; third joint of the feelers spindle-shaped; fourth very short: abdomen linear, as broad as the chest and about twice its length: legs clothed with pale yellow hairs and bristles: hips and thighs black; shanks pale tawny; feet pitchy; claws black *wings brown;* wing-ribs pitchy; veins black, bright tawny at the base and along the fore border; poisers dark tawny. Length of the body 4 lines; of the wings 8 lines.

East India.

Dasypogon trimelas, Fem.

Niger, capite pectoreque fulvescentibus, thorace vittis quatuor pallidis ornato, scutello et metathorace cinereis, abdomine basi utrinque cano posticè nitido striato, antennis pedibusque nigris, alis fuscis ad costam cinereis.

Body black: head adorned with a dark tawny covering, clothed beneath with black hairs, beset on the crown and behind the eyes with black bristles; epistoma armed with seven black spines: eyes bronzed; fore part flat, the facets very large: mouth and feelers black: chest clothed with black hairs, beset on each side with black bristles; *adorned with four dingy white, or dull pale tawny stripes*, of which the outer pair are much more distinct than the inner pair: breast dull pale tawny: *scutcheon and hind-chest grayish:* abdomen tapering from the base to the tip, narrower than

the chest and nearly twice its length; segments from the first to the fourth dull, *hoary on each side*: following segments shining, striated across; tip armed with a circlet of black spines: legs black, armed with black spines; no tip-spines: wings dark brown, adorned with a coppery-purple lustre, dark gray beneath the fore border; wing-ribs and veins black; poisers dark tawny. Length of the body 10½—12 lines; of the wings 20—23 lines.

East India.

Dasypogon pulverifer, Mas.

Cano-fulvus, albo hirtus, pectore cano, abdomine longo, antennis nigris, pedibus fulvis, femoribus nigris, alis fulvo-limpidis abbreviatis.

Body adorned with a dull tawny covering: head thickly beset with white bristles: face prominent, thickly armed from near the feelers to the epistoma with white bristles; a few black bristles about the eyelets: eyes black; fore part flat, its facets much larger than those elsewhere: mouth and feelers black; first and second joints of the feelers beset with white bristles; third joint convex beneath, narrower towards the tip: fourth tapering, not half the length of the third: neck thickly clothed with white hairs: chest thinly clothed with short black hairs, armed with black and tawny spines: breast hoary: abdomen *tawny* (which colour is hardly seen through the thick hoary covering), full twice the length of the chest, tapering from the base to the tip, clothed with white hairs: legs tawny, clothed with short pale tawny hairs, armed with black and pale tawny spines; thighs black, with tawny tips; claws black, tawny at the base: wings colourless, short, with a pale tawny tinge at the base and beneath the fore border; wing-ribs and veins tawny; poisers pale tawny. Length of the body 9½ lines; of the wings 11 lines.

East India.

Dasypogon dilutus, Fem.

Fulvus, capite nigro, thorace ferrugineo vittis tribus nigris ornato, abdominis apice ferrugineo, antennis ferrugineis, pedibus alisque fulvis.

Body tawny: head black, adorned in front with a yellow covering, clothed beneath with yellow hairs: face thickly and completely beset with

yellow bristles: eyes bronze-black; fore part nearly flat, its facets a little larger than those elsewhere: sucker black, clothed at the tip with short yellow hairs; palpi black, beset with a few black hairs: feelers ferruginous; first and second joints beset with short tawny bristles: *chest ferruginous*, clothed with short yellow hairs, *adorned with three black stripes*, of which the side pair are short and interrupted: abdomen tapering from the base to the tip, clothed with short yellow hairs, full thrice the length of the chest, *ferruginous and shining towards the tip*: legs tawny, clothed with short yellow hairs, armed with a few yellow spines; claws black, tawny at the base; fore-shanks unarmed: wings bright tawny, colourless along the hind border towards the base; wing-ribs, veins and poisers ferruginous. Length of the body 8 lines; of the wings 10 lines.

Cape.

Genus CYRTOPOGON, *Loew.*

Cyrtopogon laphrides, Plate 3, fig. 7.

Mas. *Niger fulvo hirtus, thorace nigro hirto, antennis pedibusque nigris, alis limpidis ad costam fulvis apice fuscis.*

Head very thickly clothed with tawny hairs, most thickly clothed beneath with white hairs: face mostly clothed with pale tawny hairs; eyes black, fore part flat, its facets very large: lip black, clothed at the tip with tawny hairs; tongue ferruginous; palpi black, clothed with long black hairs: feelers black; third joint very slender, very much longer than the second; fourth and fifth short: chest tinged with brown, thickly clothed with black hairs, which on the fore part give place to pale tawny hairs: abdomen obconical, shining, a little longer than the chest, clothed with tawny hairs, and at the tip with a few black hairs: legs black, adorned with three fringes, one of black hairs, another of tawny, and the third of white hairs, the black hairs are the shortest and the white hairs most thick: there are also some ferruginous hairs and bristles: shanks and feet thickly covered beneath with ferruginous down; foot-cushions tawny: wings colourless; fore border tinged with tawny towards the base, and with brown towards the tip; wing-ribs and veins black; veins tawny towards the base; poisers tawny. Length of the body $5\frac{1}{2}$ lines; of the wings 11 lines.

East India.

Genus DISCOCEPHALA, *Macquart.*

Discocephala alboatra, Plate 3, fig. 8.

Mas et Fem. *Fusca, thoracis lateribus flavo vittatis, capite subtus pectore ventreque canis, antennis nigris, pedibus fulvis, tibiis apice pedibusque posticis piceis, alis nigro-fuscis apice limpidis.*

Body dark brown: head adorned with a tawny covering, hoary and clothed with short whitish hairs beneath: eyes black; fore part nearly flat, its facets very large: sucker black, tawny at the tip; palpi black, clothed with a few long black hairs: feelers black: chest with a pale yellow stripe along each side: breast adorned with a whitish covering: abdomen hoary beneath, shining at the tip, a little narrower than the chest and nearly twice its length: legs tawny, thinly clothed with pale hairs; shanks and feet covered beneath with tawny down; tips of the shanks pitchy; claws black; hind legs pitchy, shanks towards the tips and feet black: wings blackish-brown, colourless for near half the length from the tips; wing-ribs and veins black; poisers tawny, with yellow knobs. Length of the body $2\frac{1}{2}$ lines; of the wings 5 lines.

Brazil.

CABASA, n. g.

Discocephalæ affinis: antennis articulus 2us 1o multò brevior; 3us linearis, subarcuatus, 1o et 2o multò longior.

Allied to *Discocephala:* second joint of the feelers much shorter than the first; third linear, slightly curved, much longer than the first and second joints.

Cabasa rufithorax, Plate 3, fig. 5.

Fem. *Atra, thorace rufo, abdomine nigro-purpureo, antennis pedibusque nigris, alis nigro-fuscis.*

Body black, shining, thinly clothed with black hairs and bristles: face flat, beset with six black bristles on the epistoma: eyes black; fore part flat, composed of large facets; sucker black, clothed at the tip with very short tawny hairs: palpi black, clothed with black hairs: feelers black;

first and second joints beset with a few black bristles; second much shorter than the first; third linear, slightly curved, full twice the length of the first and second joints: chest red; its fore part adorned with a short black stripe: abdomen linear, blackish-purple, a little narrower than the chest, and less than twice its length, clothed with hoary hairs, which abound most at the tip: legs black, shining, rather long, beset with black bristles; foot-cushions pitchy: wings blackish-brown, somewhat paler along the hind borders and in the disks of the areolets; wing-ribs and veins black; poisers tawny. Length of the body 4 lines; of the wings 10 lines.

Van Diemen's Land.

PROLEPSIS, n. g.

Alis areolæ posticæ tres; vena inter areolas 2am et 3am angulum rectum fingens venæ proximæ basi juncta; areola 1a inferior margine posteriore clausa.

Face armed with a thin tuft of bristles: fore-shanks without tip-spines: middle submarginal areolet rather wide on the border, the fork of the vein which includes it much nearer to the little cross-vein in the disk than to the tip of the wing; three posterior areolets; the vein between the second and the third, not as usual, passing direct to the hind border, but forming a right angle, and joining the next vein towards the base; first inferior areolet closed on the hind border.

Prolepsis fumiflamma, Plate 3, fig. 6.

Fem. *Nigra, humeris fulvo vittatis, abdomine nigro-cyaneo, antennis basi fulvis, pedibus nigris, alis fulvis, margine postico nigris, apice albis nigro fasciatis.*

Body black: covering of the head brown; hind part and sides of the crown beset with black bristles: face shining, armed with a thin tuft of black bristles: eyes black; fore part flat, its facets larger than those elsewhere: sucker black, clothed with black hairs: first and second joints of the feelers tawny, beset with black bristles: a short, oblique, pale tawny stripe on each side of the front of the chest: abdomen blue-black, almost linear, conical towards the tip, clothed with short, black hairs, as broad as the chest and towards twice its length: legs black, clothed with short black hairs and bristles: wings dark tawny, blackish along the hind border and with a broad blackish band near the tip, which

is white; the tawny hue also passes into white, where it widens towards the hind border adjoining the band; wing-ribs and veins pitchy, the latter black in the darker parts of the wing; poisers black. Length of the body 8 lines; of the wings 18 lines.

Brazil.

EUARMOSTUS, n. g.

Alis areolæ posticæ quatuor; 1a margine posteriore 2â angustior 3â latior; 4a 2â multò latior; areola 1a inferior aperta, angusta.

Face clothed with a thick tuft of hairs: legs short and stout; fore-shanks without tip-spines: wings short: base of the fork, which includes the middle submarginal areolet, equally distant from the tip of the wing and from the junction of the cross-vein; four posterior areolets; the first narrower on the hind border than the second, but broader than the third; fourth much broader than the second; first inferior areolet open, narrow.

Euarmostus bimacula, Plate 4, fig. 1.

Mas. *Nigra, fusco tecta, abdominis basi lateribus fulvo fasciculatis, segmentorum marginibus posticis fulvis, antennis basi pedibusque nigris, tarsis basi tibiisque piceis, alis limpidis fusco bimaculatis.*

Body black with a brown covering: head thickly clothed above with black hairs and beneath with hoary hairs; face adorned with a thick tuft of tawny hairs: eyes bronze, parted above by a broad interval; fore part flat, composed of large facets: sucker black, stout, clothed with black hairs: first and second joints of the feelers black, beset with black bristles: chest and breast clothed with black hairs: abdomen tapering from the base to the tip, narrower and very much longer than the chest, thinly clothed with dull, pale tawny hairs, which form a tuft on each side of the base; hind borders of the segments dull, pale tawny: legs black, clothed with black hairs, beset with black bristles; feet towards the base and shanks pitchy: wings colourless, adorned with two dark brown spots; the first very large, resting on the fore border and approaching very near to the tip, and to the adjoining hind border; the second smaller on the hind border at half the length of the wing; wing-ribs pitchy; veins black, pitchy towards the base; poisers tawny, with pitchy knobs. Length of the body 5 lines; of the wings 8 lines.

North America.

PSEUDORUS, n. g.

Antennis articulus 3us subovatus, compressus, dilatatus, 1o et 2o ferè triplò longior: thorax gibbus: alis areolæ submarginales tres; areolæ posticæ quinque, 4a subclausa aut clausa; areola 1a inferior clausa.

Third joint of the feelers nearly oval, much deepened and flattened, nearly thrice the length of the preceding joints: chest gibbous, or rising into a prominent cone, whose tip is slightly furrowed: three submarginal areolets; five posterior areolets; the fourth nearly closed or quite closed by the abrupt downward curve of the vein which forms its outer side; first inferior areolet closed.

Pseudorus piceus, Plate 4, fig. 5.

Fem. *Piceus, abdominis apice ferrugineo, antennis rufis basi ferrugineis, articulo 2o nigro, pedibus piceis, tibiis basi fulvis, tarsis posticis basi flavis, alis anticè fulvis fuscoque unimaculatis posticè cinereis, apice fuscis.*

Body pitchy, shining: thinly clothed with short black hairs: head black, transverse, as broad as the chest: eyes black; facets very small: sucker black, its tip clothed with pale yellow hairs; palpi dark ferruginous, clothed with tawny hairs: feelers as long as the head, first and second joints clothed with a few black bristles; first joint dark ferruginous; second black; third bright pale red: abdomen pitchy, shining, about twice the length of the chest, linear for half the length from the base, tapering slightly from thence to the tip, which is ferruginous: legs pitchy, shining, beset with black bristles, which are mostly on the shanks; shanks tawny at the base; claws black; foot-cushions tawny; hind feet yellow at the base: wings tawny beneath the fore border, gray towards the hind border for more than two-thirds from the base, dark brown from thence to the tips; a large brown spot at one-third of the length of the tawny part; wing-ribs pitchy; veins black; poisers tawny. Length of the body 8 lines; of the wings 17 lines.

South America.

MORIMNA, n. g.

Corpus densè pilosum: facies subproducta, setis longis hirsuta: alis areola 4a postica marginem versus clausa; areola 1a inferior ad marginem clausa.

Body thickly clothed with short hairs: face prominent, beset with long bristles towards the epistoma: fourth posterior areolet of the wing closed near the border; first inferior areolet closed on the border where the wing is notched.

Morimna Mallophorides, Plate 4, fig. 2.

Mas. *Atra, thorace antico scutello abdomineque flavo hirtis, abdomine apicem versus purpureo aut viridi nitente, antennis pedibusque nigris, tarsis piceis, alis nigro-purpureis.*

Body deep black, thickly clothed with short black hairs: head clothed with longer black hairs, adorned with a ferruginous covering, beset behind and beneath with black bristles; face beset with long black bristles towards the epistoma: eyes bronzed; fore part flat, its facets much larger than those elsewhere: sucker black, clothed at the tip with short yellow hairs; palpi black, thickly beset with black bristles: feelers black; first and second joints of equal length, beset with black bristles: chest beset on each side and behind with black bristles: abdomen slightly tapering from the base to the tip, shorter than the chest, fringed on each side, purple or metallic-green and shining from the middle to the tip, which is clothed with yellow hairs: legs black, fringed with black hairs, beset with black bristles; feet pitchy; foot-cushions tawny; hind shanks rather long; tip-spines of the fore-shanks stout, curved: wings blackish, adorned with purple reflections, wing-ribs, veins and poisers black. Length of the body 8 lines; of the wings 18 lines.

Columbia.

Genus LAPHRIA, *Fabr.*

Laphria metalli, Fem.

Cupreo-purpurea, glaucescens, nigro hirta, antennis pedibusque nigris, alis fuscis.

Body linear, rather broad, dark coppery-purple, slightly tinged with blue: head covered with dark tawny down, clothed with hoary hairs, having a few black hairs on the face and on each side of the crown, thickly fringed with black bristles behind the eyes; tubercle of the eyelets armed with two long black bristles; face slightly prominent towards the epistoma, thickly beset with long black bristles: eyes black; fore part nearly flat, its facets larger than those elsewhere: sucker black, clothed at the tip with short tawny hairs; feelers black: chest, breast and sides of the abdomen clothed with short black hairs: abdomen much longer than the chest; a thick tuft of black bristles on each side at the base: legs black, stout, thickly clothed with black hairs; shanks curved, especially the hind pair: wings dark brown; wing-ribs and veins black. Length of the body 12 lines; of the wings 23 lines.

Cape.

NUSA, n. g.

Antennis articulus 2us 1o brevior; 3us subclavatus, 1o paullò longior et multò latior; femora gracilia; tibiæ posticæ subcurvæ: alis areola 1a postica ab margine remota; 2a et 3a aperta; 4a prope marginem clausa.

Second joint of the feelers shorter than the first; third slightly club-shaped, a little longer and much broader than the first: thighs slender; hind-shanks slightly curved: first posterior areolet of the wing closed at a long distance from the border; second and third open; fourth closed near the border.

Nusa æqualis, Plate 4, fig. 4.

Fem. *Flavo-fusca, capite albido, thorace vittis duabus nigro-fuscis ornato, pectore cano, abdomine cano sex-fasciato, antennis pedibusque nigris, alis subcinereis.*

Body black: head adorned with a white covering which has a tawny tinge above, thickly clothed behind and beneath with white hairs, armed

behind with a row of yellow spines, beset on the crown with a few black bristles; two very long, stout black spines on the tubercle of the eyelets; face thinly clothed with white hairs, armed with some white spines, which are mostly towards the epistoma: eyes black; fore part flat, its facets very large: sucker and palpi black, the latter clothed with black hairs: feelers black; first and second joints beset with a few black bristles: chest yellowish-brown, thinly clothed with black hairs, adorned with two blackish-brown stripes; sides and hind part beset with some black and tawny bristles; breast hoary, partly clothed with white hairs: abdomen linear, a little narrower and much longer than the chest, thinly clothed with short tawny hairs, beset on each side at the base with a few tawny bristles; *hind borders of the segments adorned with hoary bands which are widened on each side into triangular spots*: legs black, thinly clothed with short hoary hairs, beset with some pale yellow bristles; foot-cushions tawny: wings pale gray; wing-ribs tawny; veins black, tawny at the base and along the fore border; poisers tawny. Length of body 6 lines; of the wings 11 lines.

East India.

Nusa Formio, Fem.

Nigra, fulvo tecta, capite subtus cano, pectore cinereo, antennis pedibusque nigris, alis subcinereis.

Body black, tinged with dark tawny: head adorned with a dull, pale tawny covering, hoary and clothed with white hairs behind and beneath, beset behind the eyes with black bristles; two long black bristles on the tubercle of the eyelets; face flat, clothed with a few hoary hairs, beset with some black and pale yellow bristles: eyes bronzed; fore part nearly flat, its facets much larger than those elsewhere: sucker black, clothed at the tip with very short tawny hairs: feelers black; first and second joints beset with a few black bristles; second much shorter than the first; third club-shaped, *red towards the tip*, broader and a little longer than the first joint: chest clothed with short black hairs, beset on each side and behind with a few black bristles: breast grayish: abdomen tapering from the base to the tip, narrower than the chest *and full twice its length*, thinly clothed with pale yellow hairs, armed on each side with pale yellow spines; tip black, shining, beset with long, stout, black bristles: legs black, clothed with pale yellow hairs, beset with pale yellow bristles; feet covered beneath with tawny down, beset towards the tips with black bristles; foot-cushions

tawny; wings colourless. Length of the body 6 lines; of the wings 10 lines.

East India.

ACURANA, n. g.

Antennis articulus 1us 2o duplò longior; 3us 1o et 2o longior, subfusiformis: tibiæ anteriores subrectæ, posticæ valdè arcuatæ: alis areola 1a postica prope marginem clausa, 4a et areola inferior ab margine remotæ.

Head very thickly clothed with long hairs: second joint about half the length of the first; third longer than the first and the second, very slightly spindle-shaped: four anterior shanks almost straight; hind pair much curved: first posterior areolet of the wing closed near the border; fourth closed at some distance from the border; inferior areolet closed at some distance from the border.

Acurana 6-fasciata, Fem.

Nigra, abdomine nigro-fusco fasciis sex fulvis ornato, antennis pedibusque nigris tibiis anterioribus fulvis, alis sublimpidis.

Body black: head thickly and completely clothed with long hoary hairs, beset behind the eyes with black bristles: eyes black; fore part nearly flat, its facets much larger than those elsewhere: sucker black, clothed at the tip with tawny hairs; palpi black, beset with black bristles: feelers black; first joint clothed with long hoary hairs; second and third beset with short black bristles, second about half the length of the first; third longer than the first and the second, very slightly spindle-shaped: chest and breast thinly clothed with short tawny hairs: abdomen dark brown, nearly linear, much longer but hardly narrower than the chest, conical at the tip, clothed with short, pale yellow hairs, these are most prevalent on the broad pale tawny bands which adorn the hind borders of the segments: legs black, clothed with pale yellow hairs; thighs thick, especially the hind pair; four anterior shanks tawny, almost straight; hind pair much curved; hind-feet and tips of hind-shanks clothed with short tawny hairs; claws towards the base and foot-cushions tawny: wings almost colourless; wing-ribs tawny; veins pitchy, tawny towards the base

and along the fore border; poisers tawny. Length of the body 6—7 lines; of the wings 9—11 lines.

East India.

SCANDON, n. g.

Facies densè setosa: antennis articulus 2us 1o vix brevior; 3us subfusiformis, 1o et 2o ferè duplò longior: alis arcola 4a postica aperta.

Face thickly beset with bristles: second joint of the feelers hardly shorter than the first: third slightly spindle-shaped, nearly twice the length of the first and of the second, conical and slightly oblique at the tip: tip of the abdomen of the female armed with a circlet of spines: fourth posterior areolet of the wing quite open to the border.

Scandon compactus, Plate 4, fig. 7.

Fem. *Cinereo-piceus, capite thoracis vittis duabus pectoreque aureis, thorace vittis tribus fuscis ornato, abdomine cupreo-purpureo lateribus aureo maculatis, antennis nigris, femoribus rufis, tibiis flavis apice nigris, tarsis nigris basi flavis, alis subcinereis ad costam subfulvis.*

Body black: head as broad as the chest, adorned with a golden covering, having a few black hairs about the eyelets and on each side of the crown, beset behind the eyes with a row of black bristles, thickly clothed beneath with white hairs; face prominent towards the epistoma and thickly beset with pale yellow bristles: eyes black; fore part flat, its facets very much larger than those elsewhere: sucker black, clothed at the tip with short pale hairs; palpi black, clothed with long black hairs: feelers black; first joint beset with black bristles: neck armed with a cross row of black bristles: chest very stout, pitchy, with a gray tinge which is interrupted by three slender brown stripes: it has also two golden stripes, and each of these is connected by two oblique bands, with the golden covering which adorns the sides and the breast; chest thickly clothed with black hairs, beset on each side and behind with some black spines and bristles: a convex pale golden lobe on each side of the hind chest: abdomen coppery-purple, tapering from the base to the tip, thinly clothed with very short pale yellow hairs; first segment armed on each side with a cluster of white spines; sixth and following segments black, transversely striated; a pale golden spot on each side of every segment: underside tinged with brown, clothed with long pale yellow hairs; legs stout, clothed with very

short, black hairs, armed with black spines; thighs red, clothed with white hairs; shanks pale yellow, with black tips; feet black, yellow at the base; claws ferruginous at the base; foot-cushions pale tawny: wings pale gray with a slight tawny tinge along the fore border; wing-ribs and veins ferruginous, the latter pitchy towards the tips; poisers pale ferruginous. Length of the body $6\frac{1}{2}$—$7\frac{1}{2}$ lines; of the wings 10—12 lines.

New South Wales.

CHŒRADES, n. g.

Corpus crassum: antennis articulus 1us 2o duplò longior; 3us 1o et 2o ferè duplò longior: femora postica crassa; tibiæ posticæ subarcuatæ: alæ longæ; arcola 1a postica aperta; 4a et areola inferior prope marginem clausæ.

Body stout: second joint of the feelers not more than half the length of the first; third linear for half the length from the base, very slightly tapering from thence to the tip, nearly twice the length of the first and second joints: hind thighs stout; hind-shanks slightly curved: wings long; first posterior areolet quite open; fourth closed near the border; inferior areolet closed near the border.

Chœrades aurigena, Plate 4, fig. 8.

Fem. *Niger, thorace vittis duabus fulvis maculisque sex aureis ornato, abdominis lateribus aureo maculatis, antennis nigris, pedibus fulvis, femoribus rufescentibus, tarsis nigris basi fulvis, alis fulvis apice margineque postico cinereis.*

Body black: head adorned with a golden covering, clothed with golden hairs; two black bristles on the eyelets; a row of black bristles behind the eyes; face very prominent towards the epistoma, beset with four very long and with four shorter bristles: eyes black; fore part black; its facets very much larger than those elsewhere: sucker black, clothed at the base and at the tip with short tawny hairs; palpi black, clothed with black hairs: feelers black; first and second joints beset with short black bristles: chest adorned with three golden marks on each side, thinly clothed with short tawny hairs; two indistinct dark tawny stripes on the back, and an oblique tawny band along the suture on each side: abdomen linear,

rounded towards the tip, a little narrower than the chest and less than twice its length; sides of the segments adorned with golden spots: legs tawny, clothed with short tawny hairs and with a few tawny bristles; feet black, first joint tawny; thighs reddish; foot-cushions tawny: wings bright tawny, dark gray at the tips and along the hind border; wing-ribs dark ferruginous; veins ferruginous, black at the tips and along the fore border; poisers bright pale yellow. Length of the body 8 lines; of the wings 18 lines.

Java or Sumatra.

PHELLUS, n. g.

Pedes posticè tibiis tarsisque densè hirtis: alis areola marginalis aperta; areolæ submarginales duæ; areolæ posticæ quatuor, 1a et 4a ad discum productæ, 2a et 3a breves; areola 1a inferior clausa; areolæ discoidales quatuor.

Represents the *Mallophoræ* of America. Hind-shanks and hind-feet thickly clothed with hairs: marginal areolet open at its tip: two submarginal areolets, the vein between them forming near the base a slightly obtuse angle, where it emits a stump which is full twice the length of its short side, and in a nearly direct line with its longer side; four posterior areolets, the first and the fourth running up into the disk; the second and the third shallow; first inferior areolet closed near the hind border; four discoidal areolets.

Phellus glaucus, Plate 4, fig. 9.

Niger, pilis flavis nigrisque hirtus, abdomine cyaneo nigro-piloso basi pilis flavis densè hirto, antennis basi ferrugineis, pedibus nigris nigro-hirtis, tibiis posticis apice tarsisque posticis basi flavo-hirtis, alis cinereis basi vittaque piceis.

Body black: head ferruginous above and in front, clothed with yellowish down and short hairs, most thickly beset in front with long bright pale tawny bristles, thickly clothed behind and beneath with pale yellow hairs: eyes black; all the facets very small, but slightly increasing in size towards the fore part: sucker black: first and second joints of the feelers ferruginous, first clothed with short pale yellow hairs: breast and hind part of the chest thickly clothed with pale yellow hairs; a few black hairs

and ferruginous bristles on each side of the scutcheon: abdomen bright deep blue, tapering from the base to the tip, near twice the length of the chest, clothed with short black hairs, and having towards the tip and beneath a few pale yellow hairs; first and second segments thickly clothed above with pale yellow hairs: legs black, stout, thickly clothed with short black hairs; tips of the feet clothed with tawny hairs; foot-cushions tawny; claws ferruginous at the base; first and second joints of hind-feet and tips of hind-shanks clothed with pale yellow hairs; hairs most thick on the hind-shanks and hind-feet; four front-shanks slightly curved: tips of middle shanks hooked; wings gray, pitchy at the base, where a pitchy streak proceeds for some distance beneath the fore border; wing-ribs and veins black, the latter bordered with yellowish-brown; poisers black. Length of the body 20 lines; of the wings 36 lines.

West Australia.

Genus MALLOPHORA, *Macquart.*

Mallophora xylocophides.

Atra, antennis pedibusque nigris, pedibus nigro-hirtis, tibiis tarsisque posticis ferrugineo-ciliatis, tarsis posticis apice albo-fasciculatis, alis nigro-cyaneis.

Body deep black, thickly clothed with short black hairs: crown of the head adorned with a ferruginous covering; fore part of the face thickly beset with black and ferruginous bristles: mouth mostly pitchy; palpi very thickly beset with black bristles, which have ferruginous tips: legs thickly clothed with black hairs; hind-shanks and hind-feet very deeply fringed, their hairs on the outer side mostly ferruginous; a small tuft of white hairs at the tip of each hind-foot: wings blackish, adorned with blue reflections, paler on the disks of the areolets and towards the tips, where the reflections are purple; wing-ribs, veins and poisers black. Length of the body 14 lines; of the wings 30 lines.

Para.

Mallophora fasciata, Fem.

Picea, thorace vittis tribus ferrugineis ornato, scutello ferrugineo, abdomine fasciis nigris flavisque hirto, antennis pedibusque nigris, tibiis subtus basi ferrugineis, tibiis posticis basi supra flavo-hirtis, alis fuscis albido fasciatis.

Body pitchy, clothed with short black hairs: head adorned with a tuft of yellowish-white hairs on each side beneath; face armed with ferruginous down, very convex towards the epistoma, where it is beset with long, black and pale yellow spines and bristles: eyes slightly bronzed; fore part flat, its facets much larger than those elsewhere: sucker black, clothed at the tip with tawny hairs: palpi dark red, sometimes black, thickly beset with black bristles: feelers black: chest adorned with three dark ferruginous stripes; *scutcheon ferruginous: abdomen adorned with alternate bands of black and pale yellow hairs*, entirely clothed towards the tip with tawny hairs: legs black, clothed with black hairs and bristles; shanks dark ferruginous beneath towards the base; foot-cushions bright tawny; hind-shanks clothed with bright yellow hairs towards the base above: wings brown, blackish-brown beneath the fore border towards the base: middle part occupied by a very broad whitish band; wing-ribs and veins black, the latter pale yellow in the white part of the wing; poisers tawny. Length of the body 10—12 lines; of the wings 24 lines.

Para.

Mallophora opposita, Fem.

Atra, scutello abdominisque fasciis tribus flavo-hirtis, antennis nigris basi rufis, pedibus piceis, tarsis anterioribus genubusque rufis, tibiis posticis flavo-hirtis, alis fuscis.

Body deep black, thickly clothed with black hairs: head adorned above with a dark ferruginous covering, very thickly clothed behind and beneath with bright pale yellow hairs; face in front convex and very thickly beset with black bristles, among which a few pale yellow bristles are mingled; a row of black bristles behind the eyes: eyes black; fore part flat, its facets larger than those elsewhere: sucker clothed at the tip with pale tawny hairs; palpi dark red, beset with black bristles: feelers black; first and second joints red, beset with black bristles: sides and hind

part of the chest beset with a few black bristles; scutcheon adorned with a thick tuft of bright pale yellow hairs: *abdomen adorned with three bands of bright pale yellow hairs*, which occupy more than half the length from the base; a few pale yellow hairs on the tip: legs pitchy, thickly clothed with black hairs; knees red; feet armed with black spines; claws towards the base and foot-cushions tawny; hind-shanks clothed with bright pale yellow hairs; four front feet dark red: wings brown, adorned with purple reflections; wing-ribs dark ferruginous; veins black, dark ferruginous towards the base; poisers ferruginous. Length of the body $5\frac{1}{2}$—7 lines; of the wings 14—18 lines.

Brazil.

Mallophora contraria, Mas.

Atra, capite subtus flavo, thorace nigro-fusco, antennis nigris basi fulvis, femoribus nigris, tibiis tarsisque anterioribus rufis, tibiis tarsisque posticis piceis, alis nigro-fuscis.

Body deep black, clothed with black hairs: head adorned above with a ferruginous covering, pale yellow behind and beneath, where it is thickly clothed with yellowish-white hairs, beset behind the eyes with black bristles; face convex and thickly beset with black bristles in front: eyes slightly bronzed: sucker clothed at the tip with yellow hairs; palpi very thickly beset with black bristles: feelers black; first and second joints tawny, beset with black bristles: chest and breast slightly tinged with very dark brown: thighs black, clothed with black hairs, *red towards the tips*; claws black, tawny towards the base; foot-cushions tawny; four front-shanks and feet red; four front shanks thickly clothed with bright pale yellow hairs above and thinly with black hairs beneath; four front feet clothed with pale tawny hairs, armed with black and pale red spines; hind-shanks and hind-feet pitchy, clothed with short black and long white hairs, beset with black bristles and spines: wings dark brown, adorned with purple reflections; wing-ribs and veins dark ferruginous; poisers tawny. Length of the body 7 lines; of the wings 16 lines.

South America.

Mallophora ciliata, Mas.

Nigra, flavo-hirta, thoracis disco abdominis apice ventreque nigro-hirtis, antennis nigris basi rufis, pedibus piceis, tarsis posticis basi tibiisque posticis nigro ciliatis, tarsis posticis albido hirtis, alis fuscis.

Body black, thickly clothed with short black hairs: head adorned above with a tawny covering, pale yellow and thickly clothed with pale yellow hairs behind and beneath; a few black hairs on each side of the crown; face very prominent in front, where it is most thickly clothed with bright pale yellow hairs: sucker clothed at the tip with tawny hairs; palpi beset with black bristles: feelers black; first and second joints red, beset with black bristles; eyes bronzed: chest clothed in front and on the scutcheon with yellow hairs: abdomen, excepting the tip and the under side, *thickly clothed with yellow hairs:* legs pitchy, thickly clothed with black hairs, beset with black bristles; claws black; hind-feet towards the base and hind-shanks deeply fringed with black hairs; tips of the hind-feet clothed with whitish hairs; wings brown, adorned with purple reflections; wing-ribs, veins and poisers pitchy. Length of the body $7\frac{1}{2}$ lines; of the wings 18 lines.

Genus TRUPANEA, *Macquart.*

Trupanea univentris, Mas.

Fusca, capite fulvescente, thorace vittis quatuor nigris ornato, abdomine subfulvo-cano, antennis nigris, pedibus cinereo-nigris, alis subfulvis apice cinereis.

Body brown: head adorned with a tawny covering, clothed behind and beneath with pale tawny hairs, armed behind with black spines; face prominent, beset with tawny bristles; epistoma armed with tawny spines, which do not exceed twelve in number: eyes bronze-black; fore part flat, its facets not larger than those elsewhere: sucker and palpi black, the latter beset with long tawny bristles: chest beset with very short black bristles, armed on each side with a few black spines, *adorned with four black stripes*, of which the inner pair are slender and linear, the outer pair are short, broad and interrupted: *abdomen hoary*, with a slight tawny tinge,

thinly clothed with short whitish hairs, armed on each side with one black and a few yellow spines, about twice the length of the chest: legs black, tinged with gray, clothed with short, pale tawny hairs, armed with black spines; claws pitchy at the base; foot-cushions tawny: wings tinged with dark tawny, gray towards the tips; wing-ribs and veins black; veins pitchy towards the base and along the fore border; poisers tawny. Length of the body 14 lines; of the wings 21 lines.

East India.

Trupanea telifera, Fem.

Nigro-fusca, capite thoracisque vittis tribus fulvis, ventre cinereo segmentorum marginibus posticis fulvis, antennis pedibusque nigris, femoribus subtus tibiisque rufis, alis subfuscis apice cinereis.

Body black: head adorned with a tawny covering: a few black bristles and pale yellow hairs on the crown and adjoining part of the face, which towards the epistoma is prominent and armed with a cluster of about twelve pale yellow spines, and in front of these there are four black spines on each side of the peristoma: eyes black; fore part flat and composed of large facets: palpi clothed with long, pale tawny bristles: *chest and breast dull pale brownish tawny;* breast paler than the chest, whose disk is brown and adorned *with three indistinct tawny stripes;* scutcheon and sides of the chest armed with some black spines: abdomen *blackish brown*, clothed with short black hairs, long and slender, tapering from the base to the tip, narrower than the chest and more than twice its length; hind borders of the segments pale brown above, tawny on the under side which is gray: legs black, clothed with short, pale tawny hairs, armed with black spines; thighs beneath and shanks red; foot-cushions tawny: wings pale clear brown; tips gray; wing-ribs and veins black; veins ferruginous at the base and along the fore border; poisers tawny. Length of the body 13 lines; of the wings 20 lines.

East India.

Trupanea sagittifera, Fem.

Fusca, capite fulvescente, thorace vittis quatuor obscurioribus ornato, scutello metathorace pectoreque canis, abdominis segmentorum marginibus posticis fulvis, ventre cinereo, antennis nigris, pedibus piceis subtus ferrugineis, alis limpidis ad discum subfulvis cinereo variis apice cinereis.

Head adorned with a tawny covering, clothed with a few pale tawny hairs, beset behind the eyes with a fringe of black bristles, thickly clothed beneath with whitish hairs; face prominent towards the epistoma and armed with above twelve yellowish-white spines; three black spines along each side of the peristoma: eyes black; fore part nearly flat, its facets larger than those elsewhere: sucker and palpi black, the latter beset with long black bristles: feelers black; first and second joints beset with black bristles; third spindle-shaped; bristle linear, slender, longer than the third joint: *chest pale brown*, armed on each side and behind with black spines, *adorned with four brown stripes*, of which the outer pair are interrupted; scutcheon, hind chest and breast hoary: *abdomen dark brown*, tapering from the base to the tip which is black and shining, clothed with very short black hairs, full twice the length of the chest; first segment armed on each side with a stout black spine in a cluster of pale yellow hairs; second and following segments armed on each side with one or more pale yellow spines; three rows of black dots across the base of the second segment; under side gray, hind borders of the segments tawny: legs pitchy, mostly ferruginous beneath, clothed with short hoary hairs, armed with black spines; claws black, red at the base; foot-cushions pale tawny: wings pale gray towards the tips, colourless at the base and with a slight tawny tinge in the middle part, the disks of whose areolets are pale gray; wing-ribs pitchy; veins pitchy, ferruginous at the base and along the fore border; poisers pale tawny. Length of the body 12 lines; of the wings 17 lines.

East India.

Trupanea captans, Fem.

Fusca, capite thoracisque vittis tribus fulvis, pectore cinereo, abdomine nigro, antennis nigris articulo 2o fulvo, pedibus fulvis, tibiis posticis apice tarsisque nigris, alis fuscis.

Body black: head adorned with a tawny covering, thickly clothed behind and beneath with tawny hairs; a row of black bristles behind the eyes; crown black, thinly clothed with black hairs; a few black and yellow hairs on the face near the feelers; face prominent towards the epistoma and beset with black and pale yellow bristles, the latter are stouter and more numerous than the former; sides of the peristoma thickly beset with black bristles: eyes brassy black; fore part nearly flat, its facets larger than those elsewhere: palpi thickly beset with long black bristles: feelers black; first and second joints beset with black bristles; second tawny: *chest brown*, thinly clothed with black hairs and bristles, the latter are longer and more numerous on the hind part, *adorned with three indistinct dark tawny stripes;* sides yellowish-brown; breast grayish: abdomen slightly obconical, a little narrower and much longer than the chest, clothed above with black hairs, beneath with pale tawny hairs: legs stout, *bright tawny*, clothed with pale yellow hairs, armed with black spines; feet and tips of the hind-shanks black, clothed with black hairs; claws at the base and foot-cushions tawny: wings dark brown; wing-ribs and veins black; poisers pitchy. Length of the body 8 lines; of the wings 16 lines.

South America.

Trupanea candens, Fem.

Nigra, thorace rufo quadrivittato, pectore ferrugineo, abdomine caudato segmentorum marginibus posticis fulvo bimaculatis, antennis nigris, pedibus rufis, alis flavo-fuscis.

Body black: head adorned with a bright tawny covering, beset behind the eyes with a row of black bristles, clothed behind and beneath with pale tawny hairs, which have a greenish white hue towards the base; crown black, clothed with a few black hairs; face rather prominent, beset with black and pale yellow bristles, the former are near the feelers and less numerous than the latter which are more towards the epistoma: eyes black;

fore part flat; all the facets very small: thickly beset with black bristles: feelers black; first and second joints beset with black bristles; third spindle-shaped, longer; bristle much longer than the third joint: chest clothed with black hairs and bristles, *adorned with four dark red stripes*, the hair on each side connected by an oblique dark red band; sides and breast pale ferruginous, partly clothed with pale greenish hairs: abdomen about twice the length of the chest, obconical for two thirds of the length from the base, compressed, shining and tapering like a tail from thence to the tip, clothed with black hairs above and with pale yellow hairs beneath; *a triangular tawny spot on each side of the hind border of every segment* excepting the tail; under side adorned with a tawny covering in like manner: legs red, beset with black hairs, bristles and spines; claws black; foot-cushions tawny: wings yellowish-brown; wing-ribs ferruginous; veins black, ferruginous at the base and along the fore border; poisers tawny. Length of the body 10 lines; of the wings 15 lines.

South America.

Turpanea mitescens, Fem.

Rufa, capite aureo, thorace vittis duabus nigris ornato, abdomine nigro subtus fulvo apice compresso nitente, antennis nigris articulo 2o basi fulvo, pedibus rufis, femoribus nigro vittatis, alis fuscis apice cinereis.

Head adorned with gold colour, tawny and thickly clothed with pale yellow hairs behind and beneath, armed behind the eyes with black spines: crown clothed with black hairs: face clothed with black and pale yellow hairs, convex towards the epistoma and there thickly beset with longer pale yellow bristles: eyes bronzed; fore part flat, its facets larger than those elsewhere: sucker black, clothed at the tip with short tawny hairs; palpi black, clothed with long black hairs: feelers black; first and second joints beset with short black bristles; second a little shorter than the first, tawny towards the base; third spindle-shaped, nearly as long as the first and the second; bristle linear, slightly curved, much longer than the third joint: *chest dark red, adorned with two parallel slender black stripes*, thinly clothed with black hairs, beset on each side and behind with some black bristles: breast tawny, clothed like the sides of the chest with greenish hairs: *abdomen black above, pale tawny beneath*, shining and compressed from two-thirds of the length to the tip, clothed on each side with long pale yellow hairs, a little narrower than the chest at the base, and more than twice its

length: *legs red*, clothed with pale yellow hairs, armed with black spines; *thighs streaked with black;* shanks and feet covered beneath with tawny down; claws black; foot-cushions ferruginous: wings brown, tinged with gray near the tips of the fore borders; wing-ribs and veins black; veins dark red beneath the fore border; poisers tawny. Length of the body 10 lines; of the wings 15 lines.

South America.

Trupanea substituta, Mas.

Rufa, thoracis vittis quatuor nigris, capite fulvo, pectore ferrugineo, abdomine nigro maculis lateralibus ventreque fulvis, antennis nigris basi fulvis, pedibus rufis, femoribus nigro vittatis, alis fuscis costa apiceque cinereis.

Head adorned with a tawny covering, which has a golden hue in front, clothed above with a few black hairs, beset behind the eyes with black bristles, thickly clothed behind and beneath with pale yellow hairs; face thickly beset with pale yellow bristles: eyes brassy-black; fore part flat, its facets much larger than those elsewhere: sucker black; its tip clothed with pale tawny hairs; palpi black, beset with long black bristles: feelers black; first and second joints dark tawny, beset with short black bristles; third spindle-shaped, much longer than the first or the second; bristle about twice the length of the third joint, slightly widened at the tip: *chest dark red, adorned with four indistinct black stripes*, beset with a few black bristles, clothed on each side and behind with pale yellow hairs; hairs about the wings tinged with green, especially towards the base: breast ferruginous, partly clothed with pale yellow hairs: *abdomen black*, tapering from the base to the tip, nearly twice the length of the chest, clothed on each side and beneath with pale yellow hairs; *segments adorned on each side with tawny triangular spots*, which successively increase in size towards the tip; *under side tawny;* tip and its appendages red, shining: legs red, clothed with black hairs and bristles; thighs striped with black, clothed with pale yellow hairs; shanks and feet covered with tawny down; feet darker towards the tips; claws black; foot-cushions tawny: wings brown, dark gray on the fore border at the tip; wing-ribs ferruginous; veins black, ferruginous at the base; poisers pale tawny, with pale yellow knobs.

South America.

Trupanea perfecta, Mas.

Fulva, thorace nigro quadrivittato, abdomine supra nigro segmentorum lateribus fulvo maculatis, antennis pedibusque nigris, alis fuscis ad costam apice cinereis.

Body black: head adorned with a tawny covering, which has a golden hue in front, thinly clothed above with black hairs, beset behind with black bristles, thickly clothed behind and beneath with tawny hairs; face beset with bright tawny bristles, and towards the crown with a very few black bristles: eyes adorned with indistinct colours; fore part flat, composed of large facets: sucker black, clothed at the tip with a few short tawny hairs: palpi black, beset with long black bristles: feelers black; first and second joints beset with black bristles; third spindle-shaped, much longer than the first and second; bristle rather more than twice the length of the third joint, very slightly widened at the tip: *chest and breast adorned with a tawny covering, which on the chest is interrupted by four black stripes;* sides and hind-chest beset with a few black bristles: breast partly clothed with tawny hairs: abdomen tapering from the base to the tip, nearly twice the length of the chest, clothed on each side with tawny hairs, which abound most towards the base, and there form tufts on the first segment; *a triangular tawny spot on the side of each segment, under side tawny;* tip and appendages black, shining: legs black, clothed with black hairs and bristles; thighs and shanks also clothed with tawny hairs; foot-cushions tawny: wings brown, dark gray on the fore border at the tip; wing-ribs pitchy; veins black; poisers pale tawny, with pale yellow knobs. Length of the body $5\frac{1}{2}$ lines; of the wings 9 lines.

South America.

Trupanea contracta, Mas et Fem.

Fulvo-cinerea, thorace vittis quatuor fuscis ornato, pectore cano, abdomine nigro segmentorum marginibus posticis ventreque fulvis, antennis nigris basi fulvis, pedibus fulvis, tarsis posticis femoribusque nigris, alis subfulvis.

Male. Head adorned with a pale tawny covering, thickly clothed with whitish hairs; epistoma armed with whitish spines, which are not less than twelve in number; a row of whitish bristles behind the eyes: eyes bronze-

black; fore part nearly flat, its facets larger than those elsewhere: sucker and palpi black; palpi beset with long whitish bristles; feelers black; first and second joints tawny, clothed with short whitish hairs; third conical, tawny and rounded at the base; bristle slender, nearly thrice the length of the third joint; *chest gray with a tawny tinge*, thinly beset with very short black bristles, armed on each side with a few black spines, *adorned with four brown stripes*, of which the side pair are indistinct; scutcheon and hind part of the chest beset with long whitish hairs and spines; breast hoary, thinly clothed with whitish hairs: *abdomen black*, tapering from the base to the tip, less than twice the length of the chest, clothed with short white hairs; *sides, hind borders of the segments and under side tawny: legs pale tawny*, thickly clothed with whitish hairs, armed with some black and whitish spines; *thighs and hind-feet black above*, the latter dark tawny beneath; claws black; foot-cushions tawny: wings with a very slight tawny tinge; wing-ribs and veins pitchy; veins tawny at the base and along the fore border; poisers pale tawny.

Fem. Abdomen more than twice the length of the chest, black and compressed towards the tip; poisers rather dark tawny.

Length of the body $6\frac{1}{2}$—7 lines; of the wings 10—$13\frac{1}{2}$ lines.

East India.

Trupanea temeraria, Fem.

Flavo-fusca, capite fulvo, thorace nigro bivittato, pectore cano, abdomine nigro-fusco segmentorum marginibus posticis ferrugineis, antennis pedibusque nigris, tibiis anterioribus basi fulvis, alis subfuscis apice cinereis.

Body black: head adorned with a tawny covering, paler and clothed with pale yellow hairs behind and beneath, armed behind the eyes with a row of black spines, beset with black bristles on each side of the crown; face convex towards the epistoma, beset with a few white hairs and bristles, armed with some yellow spines, these are on the epistoma and thence extend to each side of the peristoma, which has also a black bristle and a black hair: eyes bronzed; fore part nearly flat, its facets larger than those elsewhere: sucker clothed at the tip with pitchy hairs; palpi clothed with long, pale yellow hairs: feelers black; first and second joints thickly beset with short black bristles; second much shorter than the first: *chest yellowish-brown*, thinly clothed with very short black hairs, beset on each

side and behind with black bristles; *two black stripes on the disk; breast hoary:* abdomen slightly tapering from the base to the tip, narrower than the chest and more than twice its length, *tinged with dark brown*, clothed with short black hairs, which have a hoary tinge on each side; sides of the hind borders of the segments armed with black and white spines; a cluster of tawny hairs and a long black spine on each side of the first segment; under side pitchy: *hind borders of the segments ferruginous: legs black*, thickly clothed with short hoary hairs, armed with black spines; *four anterior shanks tawny at the base;* foot-cushions tawny: wings brownish, dark gray at the tips and along part of the hind borders; wing-ribs and veins black; poisers dark tawny. Length of the body $9\frac{1}{2}$ lines; of the wings 14 lines.

One specimen described has a supernumerary little cross-vein between the second and third submarginal areolets.

Senegal?

Trupanea Calanus, Fem.

Ferruginea, capite rufo subtus flavo, abdomine pilis fulvis bifasciato, antennis nigris basi rufis, pedibus rufis, tarsis piceis, alis fuscis.

Body dull ferruginous, clothed with short black hairs: *head red*, pale yellow and clothed with pale yellow hairs behind and beneath; a tuft of pale yellow hairs on the tubercle of the eyelets; sides of the crown clothed with black hairs; face shining, very convex in front, where it is thickly clothed with pale yellow hairs; sides of the peristoma beset with black bristles: eyes slightly bronzed; fore part nearly flat, its facets a little larger than those elsewhere: sucker and palpi black; palpi thickly clothed with black hairs: feelers black; first and second joints red, beset with black bristles; second joint much shorter than the first: chest clothed with short black hairs, beset on each side and behind with black bristles: breast pale ferruginous, partly clothed with ferruginous hairs: abdomen obconical, not longer than the chest, clothed with short black hairs, adorned with two bands of pale tawny hairs, beset on each side of the base with a tuft of black bristles: *legs red*, clothed with black hairs, beset with black bristles; feet pitchy; claws black, red at the base; foot-cushions ferruginous; hind-shanks thickly and deeply fringed with black hairs; tips of the hind-feet adorned with white hairs: wings brown; wing-ribs and veins ferruginous. Length of the body 9 lines; of the wings 21 lines.

East India.

Trupanea rubiginis, Fem.

Ferruginea, capite flavo, thorace nigro vittato, abdomine nigro maculis fulvis bivittato, pilis albis quinquefasciato, segmentorum marginibus posticis ferrugineis, antennis nigris, basi pedibusque rufis, alis subfuscis.

Head adorned with a yellow covering, tawny on the crown, thickly clothed behind and beneath with pale yellow hairs, armed behind the eyes with black spines; sides of the crown and tubercle of the eyelets beset with black bristles; face convex in front, thickly clothed along the whole length with yellow hairs: eyes black; fore part flat, its facets much larger than those elsewhere: sucker black, clothed at the tip with tawny hairs; palpi black, beset with black bristles: feelers black; first and second joints red, beset with a few black bristles; first clothed with very few pale yellow hairs: *chest dark ferruginous with some slender, indistinct, black stripes*, clothed with short black hairs, beset with some black bristles on each side and behind: breast pale ferruginous, thinly clothed with hoary hairs: *abdomen black, adorned on each side with tawny spots*, full twice the length of the chest, tapering from the base along near two-thirds of the length, compressed and slender from thence to the tip, *adorned with five bands of white hairs: hind borders of the segments dark ferruginous: legs red*, clothed with whitish hairs, armed with black spines; claws black, red at the base; foot-cushions tawny: wings pale brown, rather darker at the tips; a gray streak in the first submarginal areolet; wing-ribs ferruginous; veins black, ferruginous at the base and along the fore border; poisers pitchy. Length of the body 13 lines; of the wings 19 lines.

North America.

Trupanea perpusilla, Mas.

Nigra, flavo hirta, abdominis apice nigro hirto, antennis pedibusque nigris, tibiis rufis apice nigris, alis fuscis.

Body black: head clothed with white hairs, beset behind the eyes with black bristles; a few black hairs on the crown; face flat, clothed with white hairs: eyes black; fore part nearly flat, its facets larger than those elsewhere: sucker, palpi and feelers black; palpi and first and second

joints of the feelers beset with black bristles: *chest and breast clothed with yellow hairs;* chest beset on each side and behind with black bristles: abdomen slightly tapering from the base to the tip, a little longer than the chest, *clothed with yellow hairs, and towards the tip with very short black hairs:* legs stout, clothed with whitish hairs, armed with black spines; claws red at the base; foot-cushions tawny; shanks red with black tips; hind-shanks fringed with short black hairs: wings dark brown; wing-ribs ferruginous; veins black, ferruginous at the base and along the fore border; poisers tawny. Length of the body 4 lines; of the wings 8 lines.

United States.

Trupanea producta, Mas.

Cervina, thoracis disco nigro, vittis quatuor rufis ornato, abdomine ferrugineo maculis nigris albisque vittato, antennis pedibusque nigris alis limpidis venarum marginibus subfuscis.

Covering of the head tawny above, whitish behind and beneath, where it is thickly clothed with whitish hairs; a row of black spines behind the eyes and a few black bristles on the tubercle of the eyelets; sides of the crown clothed with pale yellow hairs; face most thickly beset with pale yellow hairs and bristles, convex in front: eyes bronzed; fore part nearly flat, its facets larger than those elsewhere: sucker black, clothed at the tip with short tawny hairs: palpi black, thickly clothed with long, pale yellow hairs: feelers black; first and second joints beset with pale yellow bristles: second red towards the base, much shorter than the first; third slightly spindle-shaped, nearly as long as the first and the second, longer than the bristle: *chest and breast pale fawn colour:* chest thinly clothed with very short black hairs, beset on each side and behind with a few black spines and bristles; *disk black, adorned with four dark red stripes:* breast partly clothed with hoary hairs: *abdomen ferruginous*, tapering from the base to the tip, narrower than the chest and much more than twice its length, *clothed with very short hoary and black hairs*, armed with black spines along each side; *a large irregularly-triangular black spot on the back of each segment, which on each side of its hind border is also adorned with a slightly triangular whitish spot;* tip black: legs black, thickly clothed with short hoary hairs, armed with black and white spines; claws at the base and foot-cushions red: wings colourless, slightly tinged with brown along the

borders of the veins; wing-ribs ferruginous; veins black; poisers tawny. Length of the body 17 lines; of the wings 25 lines.

Cape.

Trupanea perlonga, Mas et Fem.

Cana, capite subtus albido, thorace vittis quatuor nigris ornato, abdomine fusco segmentorum lateribus marginibus posticis ventreque canis, antennis pedibusque nigris, tibiis nonnunquam rufis, alis subcinereis, fusco variis, apice cinereis.

Male. Covering of the head tawny above, whitish and clothed with whitish hairs behind and beneath, beset behind the eyes with black bristles; a few short black bristles on each side of the crown and on the tubercle of the eyelets; face convex in front, clothed with pale yellow hairs and spines and with a few black bristles; a few black spines on each side of the peristoma: eyes bronzed; fore part nearly flat, its facets larger than those elsewhere: sucker black, clothed at the tip with short hoary hairs; palpi black, clothed with long yellow hairs: feelers black; first and second joints beset with black bristles; second red at the base, much shorter than the first; third slightly spindle-shaped, nearly as long as the first and the second joint and a little longer than the bristle: *chest hoary*, clothed with very short black hairs, beset on each side and behind with a few black bristles, *adorned with four black stripes*, of which the middle pair are narrow and linear, and the outer pair elliptical and short: *breast tawny*, thinly clothed with hoary hairs: *abdomen dark brown*, more than twice the length of the chest, thinly clothed with very short hoary hairs, armed along each side with a few black spines, tapering from the base to the tip, which is black; *sides and hind borders of the segments and the whole of the under side hoary:* legs black, clothed with very short hoary hairs, armed with black spines; shanks and feet covered beneath with tawny down; shanks sometimes red; claws at the base and foot-cushions tawny: wings slightly tinged with gray, brownish along the borders of the veins, darker gray at the tips; wing-ribs ferruginous; veins black, ferruginous at the base and along the fore border; poisers tawny.

Fem. No black bristles on the face; sides of the crown clothed with pale yellow hairs: abdomen much more than twice the length of the chest, pitchy and shining towards the tip: legs red, clothed with short hoary

hairs, armed with black spines; knees and tips of the shanks and of the joints of the feet black.

Length of the body 12—15 lines; of the wings 20 lines.

South Africa.

Trupanea porrecta, Mas.

Cervina, capite subtus albido, thoracis disco fusco vittis pallidioribus duabusque nigris ornato, abdomine fusco, apice ventreque ferrugineis, segmentorum marginibus posticis canis, antennis nigris, pedibus rufis, alis limpidis venarum marginibus subfuscis.

Covering of the head pale tawny, whitish and clothed with whitish hairs behind and beneath, beset behind the eyes with a row of black bristles; a few pale yellow hairs on each side of the crown; face prominent in front, thickly clothed with pale yellow hairs and bristles; sides of the peristoma beset with black bristles: eyes bronze-black; fore part nearly flat, its facets larger than those elsewhere: sucker black, clothed at the tip with short tawny hairs; palpi black, thickly clothed with pale yellow hairs: feelers black; first and second joints beset with a few short black bristles; second not more than half the length of the first; third spindle-shaped, as long as the first and the second, and a little longer than the bristle: *chest and breast pale fawn-colour:* chest thinly clothed with very short black hairs, beset on each side and behind with a few black bristles and spines; *disk brown, adorned with indistinct paler stripes, and on each side with a black stripe: abdomen brown*, tapering from the base, more than twice the length of the chest, clothed with short black hairs, armed along each side with black spines; *hind borders of the segments hoary; under side and tip ferruginous:* legs red, clothed with short hoary hairs, armed with black spines; claws black; foot-cushions tawny: wings colourless, slightly tinged with brown along the borders of the veins; wing-ribs ferruginous; veins black, ferruginous towards the base and along the fore border; poisers tawny. Length of the body 14 lines: of the wings 22 lines.

Genus ERAX, *Macquart.*

Erax Parphorus.

Fulvus, thoracis vittis quatuor abdomineque nigris, hujus segmentorum marginibus posticis ventreque cinereis, antennis pedibusque nigris, alis subcinereis.

Head adorned with a tawny covering, which has a silky lustre, beset behind the eyes with black bristles, thickly clothed beneath with tawny hairs; a few black hairs and bristles on the crown; face very prominent, thickly beset with long, stout, black bristles: eyes bronzed; a small portion of the fore part nearly flat, composed of large facets: sucker black, clothed at the tip with tawny hairs: palpi black, beset with long black bristles: feelers black; first and second joints beset with black bristles; third oval, longer than the second, bristle hardly widened at the tip, about thrice the length of the third joint; *chest adorned with a dark tawny covering*, beset on each side and at the tip with a few black bristles, *having four black stripes*, of which the middle pair are straight and entire, the side pair irregular and interrupted: breast pale grayish tawny: *abdomen black*, tapering from the base to the tip, about twice? the length of the chest, thinly clothed on each side with whitish hairs; *hind borders of the segments and under side gray: legs black*, clothed with black hairs and bristles; foot-cushions dark tawny: wings pale brown; wing-ribs and veins black; stump on the vein between the submarginal areolets about thrice the length of the inner side of the angle whence it springs; poisers tawny. Length of the body 11? lines; of the wings 16 lines.

Columbia.

Erax Mygdon, Fem.

Fulvus, thoracis vittis quatuor abdomineque nigris, hujus lateribus ventreque fulvis, antennis nigris, pedibus fulvis, femoribus tibiisque apice nigris, alis subfuscis.

Head adorned with a pale tawny covering, which has a silky lustre, having a very few black hairs and bristles on the crown, beset behind the eyes with a row of black bristles, thickly clothed beneath with white hairs: face slightly prominent, beset with very few black bristles, armed with eight

or ten pale yellow spines: eyes bronzed; fore part flat, composed of very large facets: sucker black, clothed at the tip with pale tawny hairs: palpi black, beset with long black bristles: feelers black; first and second joints beset with short black bristles; second joint not half the length of the first; third spindle-shaped, shorter than the first; bristle nearly twice the length of the third joint: *chest dark tawny*, beset on each side and behind with a few black bristles, *adorned with four black stripes*, of which the inner pair are straight and entire, the outer pair irregular and interrupted; hind part hoary: breast pale tawny, with a hoary tinge: *abdomen black*, more than twice the length of the chest, tapering, ending in a tail, which is shining and compressed and about one-fourth of the whole length, thinly clothed with hoary hairs, which abound most on each side at the base; *sides and under side tawny*, with a hoary covering: *legs tawny*, beset with black bristles and spines, which are most frequent on the feet; tips of the thighs and of the shanks black; feet dark tawny, black towards the tips; foot-cushions yellow: wings pale brown; wing-ribs and veins black; stump on the vein between the submarginal areolets shorter than the inner side of the angle whence it springs; poisers yellow. Length of the body 10 lines; of the wings 16 lines.

South America.

Erax Potamon, Mas.

Ferrugineus, thoracis vittis quatuor abdomineque nigris, hujus apice fulvo, antennis pedibusque nigris, tibiis fulvis apice nigris, alis fuscis.

Body black: head adorned in front with a tawny covering, whitish and clothed with white hairs behind and beneath; crown and hind part beset with black bristles; face very convex, beset with numerous stout black bristles: eyes bronzed; fore part nearly flat, composed of large facets: sucker black, clothed at the tip with short tawny hairs; palpi black, clothed with long black hairs: feelers black; first and second joints beset with black bristles; second not half the length of the first; third spindle-shaped, a little shorter than the first; bristle not twice the length of the third joint: *chest and breast adorned with a ferruginous covering; four black stripes on the chest*, which is beset on each side and behind with some black bristles; breast with a hoary tinge: abdomen very slightly tapering from the base to the tip, much narrower than the chest and about twice its length, clothed for half the length from the base, and again to-

wards the tip with pale tawny hairs; *sixth segment yellowish brown, with a yellow hind border; seventh tawny;* tip and appendages ferruginous, shining, beset beneath with a few black bristles: *legs black*, beset with black hairs and bristles; *shanks tawny, with black tips;* foot-cushions pitchy: wings dark brown; wing-ribs and veins black; angle of the vein between the submarginal areolets much rounded, with no stump; poisers pale yellow. Length of the body 9 lines; of the wings 16 lines.

South America.

Erax Stimicon, Fem.

Ferrugineus, thoracis disco abdomineque piceis, hujus segmentorum marginibus posticis fulvis, antennis fulvis apice nigris, pedibus ferrugineis, alis limpidis.

Head pale tawny, whitish and clothed with white hairs behind and beneath, armed behind the eyes with a few black and tawny spines; a few white hairs and pale yellow bristles on each side of the crown; face very convex, beset with white hairs and pale yellow spines: eyes bronzed; fore part nearly flat, its facets larger than those elsewhere: sucker black, clothed at the tip with short, pale tawny hairs; palpi dark tawny, beset with long, black bristles: feelers black; first and second joints tawny, beset with short, black and pale yellow bristles; second much shorter than the first; third tawny at the base, tapering from near the base to the tip, as long as the first; bristle a little longer than the third joint: *chest and breast ferruginous*, clothed here and there with a few short, black and hoary hairs; *disk of the chest almost pitchy;* sides and scutcheon armed with a few black spines; breast with a hoary tinge: *abdomen pitchy*, about twice the length of the chest, clothed with short black and hoary hairs, slightly tapering from the base to the tip which is black and shining; *sides and hind borders of the segments tawny; first segment tawny*, armed on each side with three black spines: *legs pale ferruginous*, clothed with short hoary hairs, armed with black spines; knees black; claws black, dark tawny at the base; foot-cushions pale tawny: wings colourless, rather short; wing-ribs and veins ferruginous, the latter black towards the tips; angle of the vein between the submarginal areolets very distinct, slightly obtuse, its stump much more than twice the length of its inner side; poisers pale tawny. Length of the body 9 lines; of the wings 13 lines.

Columbia.

Erax concolor, Fem.

Flavo-fuscus, abdominis segmentorum marginibus posticis fulvis, antennis nigris, pedibus rufis, femoribus nigro vittatis, alis fulvis.

Body yellowish brown: head adorned with a tawny covering, whitish and clothed with whitish hairs behind and beneath, beset behind the eyes with yellow bristles; face slightly convex and armed with pale yellow spines towards the epistoma; one or two black bristles on each side of the peristoma: eyes bronzed; fore part nearly flat, its facets a little larger than those elsewhere: sucker black, clothed at the tip with tawny hairs; palpi black, beset with long black bristles: feelers black: chest thinly clothed with black hairs, beset on each side and behind with black bristles: abdomen clothed with short yellow hairs, narrower than the chest and nearly twice its length, tapering from the base to the tip, which is black, shining and compressed; *hind borders of the segments tawny: legs dark red*, clothed with short pale yellow hairs, armed with black spines; *thighs striped with black;* claws black, red at the base; foot-cushions dark tawny: wings tawny; wing-ribs and veins red, the latter pitchy towards the tips; poisers tawny. Length of the body 11 lines; of the wings 18 lines.

Erax asper, Mas.

Flavo-fuscus, capite pectoreque fulvis, antennis pedibusque nigris, tibiis rufis, alis subfulvis.

Body black: head adorned with a tawny covering, yellow and clothed with pale yellow hairs behind and beneath, thickly beset behind the eyes with black bristles, clothed with black hairs on each side of the crown; tubercle of the eyelets beset with black bristles; face convex along nearly the whole length, very thickly clothed with pale yellow hairs, among which some black bristles are mingled: eyes brassy; fore part nearly flat; its facets larger than those elsewhere: sucker clothed at the tip with pale yellow hairs; palpi very thickly beset with black bristles: feelers black; first and second joints clothed with black hairs; second not half the length of the first: *chest covered with yellowish brown*, thinly clothed with black hairs, beset on each side and behind with black bristles: breast dark tawny: *abdomen mostly covered with yellowish brown*, tapering from the base to the tip, where it is shining, narrower than the chest and nearly

twice its length, clothed with long pale yellow hairs, beset at the tip and on each side of the base with black bristles: *legs black*, clothed with short black and with longer pale yellow hairs, beset with black bristles and spines; *shanks dark red*, with black tips; fore-shanks covered beneath with tawny down; foot-cushions tawny: wings with a slight tawny tinge: wing-ribs ferruginous; veins black, ferruginous towards the base; poisers tawny. Length of the body 10 lines; of the wings 17 lines.

ERAX INVARIUS, Fem.

Cinereus, capite subtus albo, thoracis disco nigro vittis duabus cinereis ornato, abdomine piceo apice caudato segmentorum marginibus ventreque canis, antennis pedibusque nigris, alis fusco-cinereis.

Body black: covering of the head pale tawny above, white behind and beneath, where it is thickly clothed with white hairs; a row of black bristles behind the eyes; two black bristles on the tubercle of the eyelets, and a few on each side of the crown; face very convex in front, clothed with short pale tawny hairs and very thickly beset with long black bristles: eyes bronzed; fore part flat, its facets much larger than those elsewhere: mouth clothed with white hairs; palpi thickly beset with black bristles; feelers black; first and second joints beset with black bristles; second not half the length of the first; third conical, about one third of the length of the bristle, longer than the second joint: *chest and breast gray with a tawny tinge:* chest clothed with black hairs and with a few black bristles; *its disk black with the exception of two stripes, which are joined to the gray hue on each side by two oblique bands:* breast clothed with hoary hairs: *abdomen pitchy*, tapering from the base, more than twice the length of the chest, *compressed and shining for full one-third of the length from the tip*, thinly clothed with hoary hairs; *sides and hind borders of the segments above, and the whole of the under side hoary: legs black*, clothed with black and hoary hairs, armed with black spines; foot-cushions pitchy: wings brownish-gray; wing-ribs pitchy; veins black, ferruginous at the base; stump on the submarginal vein very much longer than the inner side of the angle, whence it springs; poisers tawny. Length of the body 9 lines; of the wings 14 lines.

Jamaica.

ERAX COMMILES, Fem.

Ferrugineus, capite fulvo, thoracis disco fusco vittis tribus cinereis ornato, abdomine nigro apice caudato segmentorum lateribus marginibusque posticis fuscis, antennis pedibusque nigris, tibiis fulvis, alis fuscis.

Head adorned with a tawny covering, clothed behind and beneath with pale yellow hairs, beset behind the eyes with black bristles; a few black bristles on each side of the crown, and two stout, long black bristles on the tubercle of the eyelets; face very convex along most part of the length, thinly clothed with yellow hairs, beset with numerous stout black bristles: eyes bronzed; fore part nearly flat, its facets larger than those elsewhere: mouth black, clothed with long yellow hairs, tawny at the tip; palpi black, thickly beset with black hairs and bristles: feelers black; first and second joints thickly beset with black bristles; second about half the length of the first; third red at the base, tapering from near the base to the tip, longer than the second joint, but not one-third of the length of the bristle: *chest and breast pale ferruginous;* chest thinly clothed with black hairs, beset on each side and behind with black bristles; *its disk brown, adorned with three gray stripes: abdomen black*, tapering from the base, more than twice the length of the chest, *shining and compressed for more than one-third of the length from the tip; sides and hind borders of the segments from the first to the fourth brown: under side gray; legs black*, clothed with short black and longer tawny hairs, armed with black spines; *shanks bright tawny, with black tips;* foot-cushions tawny: wings brown, paler towards the base; wing-ribs ferruginous: veins black, ferruginous at the base; stump on the submarginal areolets as long as the inner side of the angle whence it springs. Length of the body 12 lines; of the wings 20 lines.

South America.

Genus ASILUS, *Linn.*

Division I.

Distance of the base of the second submarginal areolet from the tip of the wing hardly half that from the base of the first submarginal areolet.

Ex.—A. Tucca, Amazænes, Isse (sp. of Lophonotus?), brachypterus, inumbratus.

Division II.

Base of the second submarginal areolet much nearer to the tip of the wing than to the base of the first submarginal areolet.

Ex.—A. plicatus, Antiorus, Eanes, Malleolus, Pelago, Gorgasus, inglorius, Amycla, Amythaon, Maso, Sydneensis, Alatus, Barium, Baletus, Iamenus, Centho, iopterus (n.g.), Sophus, barbarus, Crabroniformis, Apicata, Calatinus, Chrysitis, Ponarius, Blasio, Balacrus, Antiphus, Triopas, Alastor (n.g.), Halmus, Aphellas, Noas, Abuntius, Paron, Jacksonii, Lecythus, Agrius, apicalis, Sadyates, Alethes, Antimachus, Cœdicius, Orphne, varius, flavicornis, Antilco, Echepolis, Margitis, Ochesius, Dasius, Mucius, Scaurus, Bulbus, fimbriatus, albiceps, forcipatus, trigonus, æstivus, cothurnatus, geniculatus, punctipennis, varipes, inconstans, cinerarius, Therimachus, Congedus, elicitus, Hyagnis, Herdonius, Maricus, Gamaxus, Trachalus, Lycorias, luctificus, obumbratus, exilis, acutangulatus, paterculus? præfiniens, variabilis, flavescens, annulipes? culiciformis? grandis, penultimus, discutiens, ultimus, mucidus.

Division III.

Base of the second submarginal areolet a little nearer to the tip of the wing than to the base of the first submarginal areolet.

Ex.—A. Corymeta, Hagno, rufinervis, Gerion, brevipennis, Coras, Paropus, Thimbro, Lascus, flavicornis, villicatus, annulatus, Eupator, Tatius, Tamphilus.

Division IV.

Base of the second submarginal areolet nearly equally distant from the tip of the wing and from the base of the first submarginal areolet.

Ex.—A. heros, Daraps, velustus, macrotelus, Icadius, Ogulinus, Curiatius, Corissus, Ctesicles, Hilarii, opulentus, germanicus, pyrrhomystax, leoninus.

Division V.

Base of the second submarginal areolet further from the tip of the wing than from the base of the first submarginal areolet.

Ex.—A. Peticus, Corythus, Gavius, Antidomus.

Asilus inumbratus, Mas.

Cinereo-fuscus, ventre cinereo, antennis nigris, pedibus nigro-æneis, alis fulvis.

Body black: head thickly clothed behind and beneath with tawny hairs, beset behind the eyes with tawny bristles; sides of the crown beset with slender black bristles; face most thickly clothed with long, bright, tawny bristles: eyes bronzed; fore part nearly flat, its facets larger than those elsewhere: sucker clothed at the tip with tawny hairs; palpi beset with long black bristles: feelers black; first and second joints beset with long black bristles: *chest and breast tinged with grayish brown:* chest thinly clothed with short black hairs, beset with some black spines and bristles, these are chiefly on each side and behind, where there are a very few pale yellow spines: *abdomen tinged with grayish brown*, clothed with hoary hairs, narrower than the chest and less than twice its length, tapering from the base to the tip *which is black and shining; under side gray: legs brassy-black*, thickly clothed with hoary hairs, *armed with pale yellow spines;* foot-cushions ferruginous; hind-thighs and hind-shanks armed beneath with very stout and short black spines: *wings tawny*, wing-ribs ferruginous; veins black, ferruginous towards the base; poisers tawny, with pitchy knobs. Length of the body 9½ lines; of the wings 14 lines.

Asilus penultimus, Mas.

Ferrugineus, thorace vittis tribus fulvis ornato, abdominis apice fulvo segmento 7o albido, antennis nigris basi ferrugineis, pedibus ferrugineis, alis limpidis venarum marginibus flavo-fuscis.

Body ferruginous: head adorned with a yellowish white covering, clothed with tawny hairs on the crown, and with whitish hairs behind and beneath, armed behind the eyes with two black spines and with numerous tawny spines; face convex in front, very thickly clothed with bright tawny hairs and bristles: eyes bronzed; fore part nearly flat, its facets larger than those elsewhere: sucker black, clothed towards the base with long yellow hairs, and at the tip with short tawny hairs; palpi black, clothed with long pale yellow hairs: first and second joints of the feelers ferruginous, beset with short, black, and tawny bristles; second much shorter than the first; third black, nearly spindle-shaped, as long as the first joint,

ferruginous at the base; bristle black, about twice the length of the third joint: neck thickly clothed with yellow hairs: *chest adorned with tawny reflections and with three indistinct tawny stripes*, thinly clothed with short black hairs, beset on each side and behind with a few black bristles: breast clothed with yellow hairs, which are very thick about the base of the fore-legs: abdomen full twice the length of the chest, tapering from the base to the tip, *where it is tawny*, clothed with tawny hairs, and towards the base with black hairs; *seventh segment whitish;* sexual parts ferruginous, shining: *legs ferruginous*, clothed with tawny hairs, armed with black spines: *wings colourless, yellowish brown along the borders of the veins;* wing-ribs, veins and poisers ferruginous. Length of the body 18 lines; of the wings 28 lines.

East India.

Asilus discutiens, Fem.

Fulvus, thorace subvittato, pectore cinereo, abdomine nigro, antennis nigris, pedibus rufis, genubus tibiis apice tarsisque nigris, alis subcinereis apice obscurioribus venarum marginibus fulvis.

Body black: head adorned with a tawny covering, thickly clothed behind and beneath with pale yellow hairs; a few black bristles behind the eyes; a few black hairs on the tubercle of the eyelets and on each side of the crown; face convex in front, clothed with pale yellow bristles and black hairs, the latter are chiefly towards the feelers: eyes bronzed; fore part flat, its facets much larger than those elsewhere: sucker clothed at the tip with tawny hairs; palpi thickly beset with black bristles: feelers black; first and second joints beset with black bristles; second about half the length of the first: chest clothed with black hairs, beset on each side and behind with black bristles; *its covering tawny*, indistinctly striped: breast gray: abdomen tapering from the base to the tip, nearly twice the length of the chest, *thickly clothed with bright tawny hairs; tip shining, compressed: legs dark red*, clothed with short black hairs and with a few yellow bristles, armed with black spines; *feet, knees, and tips of shanks black;* foot-cushions tawny; thighs clothed with hoary hairs: *wings slightly tinged with gray, their tips darker; borders of the veins tawny;* wing-ribs and veins ferruginous, poisers tawny, with ferruginous tips. Length of the body 14 lines; of the wings 25 lines.

New Holland.

Asilus ultimus, Mas.

Ferrugineus, thorace nigro quadrivittato, abdomine piceo apice ferrugineo lateribus albido variis, antennis nigris basi rufis, pedibus ferrugineis, femoribus nigris, alis subfuscis.

Head ferruginous, adorned with a pale tawny covering, thickly clothed behind and beneath with whitish hairs, beset with black bristles behind the eyes and on each side of the crown, and on the tubercle of the eyelets; face very convex, thickly clothed with long pale yellow hairs which also fringe the sides of the peristoma: eyes black; fore part flat, its facets much larger than those elsewhere: sucker black, clothed with long white hairs towards the base, and with short tawny hairs at the tip; palpi black, beset with black bristles: feelers black; first and second joints red, beset with short black bristles; first clothed with pale yellow hairs; second about half the length of the first; third spindle-shaped, nearly as long as the first; bristle almost twice the length of the third joint: *chest and breast ferruginous: chest adorned with four black stripes*, of which the side pair are indistinct, clothed with very short black hairs, beset on each side and behind with black bristles; breast tinged with gray, partly clothed with hoary hairs; a tuft of black bristles on each side of the hind chest: *abdomen pitchy*, nearly twice the length of the chest, clothed with short black and white hairs; *hind borders of the segments paler, whitish on each side; sixth and seventh segments ferruginous with whitish sides*; fifth and following segments of the underside ferruginous, adorned with a white covering; sexual parts ferruginous, shining, clothed with tawny hairs: *legs ferruginous*, clothed with short black hairs, armed with black spines; thighs clothed with white hairs; claws black; foot-cushions tawny; *four front thighs black, with ferruginous tips: wings pale clear brown;* wing-ribs ferruginous; veins pitchy, ferruginous at the base and along the fore border; poisers ferruginous. Length of the body 13 lines; of the wings 22 lines.

North America.

ASILUS THERIMACHUS, Mas et Fem.

Niger, thoracis vittis tribus pectore ventreque cinereis abdominis segmentorum marginibus posticis canis, antennis pedibusque nigris, alis sublimpidis, apicibus marginibusque posticis cinereis.

Male. *Body black*, with a very slight bluish tint, which appears most on the sides of the breast: head adorned in front with a tawny covering, whitish and clothed with white hairs behind and beneath, beset behind the eyes with a row of black bristles; crown clothed with a few black hairs; face very convex towards the epistoma, thickly clothed with long, shining, white hairs; a few black hairs towards the feelers and along the sides of the face and of the peristoma: eyes bronzed; fore part flat, its facets much larger than those elsewhere: sucker dark tawny and clothed with pale tawny hairs at the tip; palpi beset with long black hairs: feelers black; first and second joints beset with long black bristles; second not more than half the length of the first; third long spindle-shaped, much longer than the first joint; bristle nearly as long as the third: *chest adorned with three gray stripes*, clothed with black hairs and bristles, the latter mostly on the hind part; sides, hind-chest and breast tinged with gray: *abdomen pitchy black*, clothed with hoary hairs, very slightly tapering from the base to near the tip, a little narrower than the chest and less than twice its length; hind borders of the segments beset with black bristles *and adorned with hoary bands; sides gray with a tawny tinge;* underside gray; sexual parts large, black, shining, beset with black bristles, which form a tuft on each side above, the part between adorned with silky white and pale yellow hairs: *legs black*, clothed with short black hairs, armed with black bristles and spines; thighs thinly clothed with white hairs; *hind-shanks very slightly curved; feet and tips of hind-shanks partly adorned with a tawny tinge beneath;* claws at the base and foot-cushions tawny: *wings nearly colourless, gray along the fore border towards the tips, and along the hind border except at the base;* wing-ribs dark ferruginous; veins black, ferruginous at the base; poisers pale yellow, tawny at the base.

Fem. White hairs on the face much less numerous than those of the male; black hairs more numerous: abdomen black, about twice the length of the chest, slightly tapering from the base to the tip, towards which it is shining; hind borders of the segments hoary; a hoary tinge on each side and beneath.

Length of the body 6—6½ lines; of the wings 12 lines.

Brazil.

Asilus Congedus, Mas et Fem.

Niger, thorace vittis quatuor fulvis ornato, pectore cinereo, abdomine fasciis cinereo-fulvis ornato, antennis ferrugineis basi nigris, pedibus nigris fulvo et ferrugineo variis, alis limpidis.

Male. Body black: head broader than the chest, brown above, pale yellow with a silky lustre in front, hoary and clothed with white hairs behind and beneath; face slightly prominent, armed with numerous pale yellow spines: eyes large, adorned with iridescent colours; fore part nearly flat, its facets larger than those elsewhere: sucker clothed at the tip with pale tawny hairs; palpi small: feelers pale ferruginous; first and second joints black, adorned with a tawny covering, beset with short black bristles; second pale ferruginous at the tip, as long as the first; third slightly tapering from the base to the tip, much longer than the first; bristle black, much longer than the third joint, very slightly widened near the tip: chest beset on each side and behind with a few black bristles, *adorned with four tawny stripes* which are united on each side in front: *breast tinged with gray:* abdomen narrower than the chest and more than twice its length, thinly clothed with short hoary hairs, slightly tapering from the base to the tip, which with its appendages is shining and clothed with short black hairs; four white spines on each side of the fifth segment; *a broad grayish tawny band on each segment; hind part of breast, and hind borders of the first, second and third abdominal segments on the under side ferruginous: legs black*, clothed with short black hairs, armed with black spines; *thighs ferruginous at the base beneath; four anterior thighs ferruginous at the tips beneath; shanks tawny, with black tips; hind-shanks striped beneath with black;* foot-cushions pale tawny: *wings quite colourless;* wing-ribs and veins pale tawny; poisers pale ferruginous.

Fem. Eyes convex in front; facets larger than those elsewhere: abdomen much more than twice the length of the chest, compressed and shining for one-third of the length from the tip: thighs tawny with black tips, darker than the shanks; feet dark ferruginous at the base, clothed beneath with tawny down.

Length of the body 7—8 lines; of the wings 10 lines.

East India.

Asilus elicitus, Fem.

Fuscus, capite albido, thorace vittis quatuor nigris ornato, pectore cano, abdomine nigro segmentorum marginibus posticis ventreque cinereis, antennis pedibusque nigris, tibiis fulvis apice nigris, tarsis basi rufis, alis cinereis.

Head adorned with a whitish covering, thickly clothed beneath with whitish hairs, beset behind the eyes with black bristles; crown black, shining, clothed with black hairs; epistoma and adjoining part of the face thickly beset with black and whitish bristles: eyes bronzed; fore part nearly flat, its facets a little larger than those elsewhere: sucker and palpi black; tip of the sucker clothed with very short white hairs; palpi clothed with long hoary hairs: feelers black; first and second joints beset with short black bristles; third joint tapering from near the base to the tip, about twice the length of the second: bristle slightly tapering, longer than the third joint: *chest brown*, clothed with black hairs and bristles, *adorned with four black stripes*, of which the middle pair are linear and slender, the outer pair are short and broad; sides paler, armed with a few black spines: *breast hoary*, partly clothed with whitish hairs; *abdomen black*, much more than twice the length of the chest, *clothed at the base and beneath with hoary hairs*, tapering from the base along two-thirds of the length, *shining and much compressed from thence to the tip; under side and hind borders of the segments gray: legs black*, clothed with short black hairs, armed with black spines; hips and thighs clothed with hoary hairs; *shanks tawny with black tips; feet red at the base;* foot-cushions tawny: *wings gray;* wing-ribs pitchy; veins black. Length of the body 9 lines; of the wings 12 lines.

New South Wales.

Asilus Hyagnis, Mas.

Cervinus, capite fulvo subtus flavo, thorace vittis quatuor fuscis ornato, pectore cano, abdominis segmentorum marginibus posticis fulvis, antennis pedibusque ferrugineis, tarsis posticis nigris, alis subfulvis apice cinereis.

Head pale tawny, with a few pale yellow hairs on each side of the crown, pale yellow and thickly clothed with hoary hairs behind and beneath, beset behind the eyes with a few pale yellow spines; face very

prominent towards the epistoma and beset with numerous pale yellow bristles: eyes black; fore part flat, composed of large facets: sucker black, tawny and clothed with pale yellow hairs at the tip; palpi black, clothed with long pale yellow hairs: feelers pale ferruginous; first and second joints beset with black bristles; second much shorter than the first; third dark ferruginous, pale ferruginous at the base whence it tapers to the tip, much longer than the first joint; bristle black, much longer than the third joint: *chest fawn colour*, clothed with short black hairs, beset on each side and behind with a few black bristles and pale yellow hairs, *adorned with four brown stripes*, of which the middle pair are long, slender and straight, the side pair shorter, broader and spindle-shaped: *breast hoary; abdomen tinged with a slight fawn colour, darker above than the chest* and more than twice its length, clothed with short pale yellow hairs, very slightly tapering from the base to the tip *which is black, shining*, and thickly clothed with black hairs: *sides and hind borders of the segments tawny: legs pale ferruginous*, clothed with short black hairs, armed with pale yellow spines; *four hinder knees black; hind-feet black*, armed with black spines, ferruginous and covered with tawny down beneath; tips of four front feet black; spines of the four front feet mostly yellow, those of the hind feet mostly black; claws black, ferruginous at the base; foot-cushions pale tawny: *wings slightly tinged with tawny, gray, with the exception of a space, in the disk for more than half the length from the tips;* wing-ribs and veins tawny, the latter darker towards the tips; poisers tawny. Length of the body 10 lines; of the wings 16 lines.

New South Wales.

Asilus Herdonius, Fem.

Cyaneo-niger, thoracis vittis tribus pectore abdominis segmentorum marginibus posticis ventreque canis, antennis pedibusque nigris, alis subcinereis apice obscurioribus.

Body blueish black: head beset behind the eyes with a row of black bristles, adorned in front with a tawny covering, whitish and clothed with white hairs behind and beneath; crown brown, clothed with a few long black hairs; face very prominent towards the epistoma, beset with many black and white bristles, the latter on the epistoma; sides of the peristoma beset with black bristles: eyes bronzed; fore part nearly flat, its facets larger than those elsewhere: sucker black, clothed at the tip with short tawny hairs; palpi tawny, beset with black bristles: feelers black; first

and second joints beset with long black bristles; second a little shorter than the first; third long, spindle-shaped, rather slender, much longer than the second; bristle rather stout, nearly as long as the third joint: *chest and breast hoary;* chest beset with a few black hairs and bristles, *its disk black, adorned with three hoary stripes:* abdomen very slightly tapering from the base to the tip, nearly twice the length of the chest, clothed with black and white bristles and hairs, the latter most frequent on the under side, *which is hoary, as are also the hind borders of the segments above; tip shining*, beset beneath with black bristles: *legs black*, thinly clothed with hoary hairs, armed with black spines; hind-shanks and feet adorned beneath with tawny down; foot-cushions tawny: *wings pale gray, dark gray towards the tips and thence along the greater part of the hind border;* wing-ribs and veins black; poisers yellow. Length of the body 6½ lines; of the wings 13 lines. A. Gamaxus, Fem.?

South America.

Asilus Maricus, Fem.

Niger, antennis pedibusque nigris, tibiis fulvis apice nigris, alis cinereis.

Body black: head mostly adorned with a dark tawny covering, clothed behind and beneath with tawny hairs; a few black hairs on the crown; face very convex towards the epistoma, beset with pale yellow bristles and nearer the feelers with black bristles; sides of the peristoma also beset with black bristles: eyes black; fore part nearly flat, its facets larger than those elsewhere: sucker clothed at the tip with short pale hairs: palpi clothed with pale yellow hairs: feelers black; first and second joints of nearly equal length, beset with black bristles; third as long as the first and the second, very slightly tapering from the base to the tip; bristle much stouter than usual, tapering from the base to the tip, more than half the length of the third joint: *chest thinly clothed with tawny hairs: abdomen slightly compressed, clothed with a few hoary hairs*, narrower than the chest and much more than twice its length, very slightly tapering from the base to the tip *which is shining and much compressed: legs black*, clothed with short black hairs, beset with black bristles; *thighs with a tawny tinge; shanks tawny, black for one-third of the length from the tips;* claws at the base and foot-cushions tawny: *wings gray;* wing-ribs and veins black; foot-cushions tawny. Length of the body 9 lines; of the wings 14 lines.

Port Philip.

Asilus Gamaxus, Mas.

Nigro-fuscus, thoracis vittis tribus lateralibus pectoreque cinereis, abdominis segmentorum marginibus posticis fulvo-canis, antennis pedibusque nigris, alis sublimpidis costa apice venarumque marginibus fuscis.

Body black: head adorned in front with a tawny covering, whitish and clothed with white hairs behind and beneath, thickly beset behind the eyes with black bristles; crown brown, clothed with a few black hairs; face very convex, thickly beset with pale yellow bristles; a very few black bristles towards the feelers and on each side of the face and on the sides of the peristoma: eyes bronzed; fore part flat, composed of large facets: sucker clothed at the tip with short tawny hairs; palpi beset with long black hairs: feelers black; first and second joints beset with black bristles: second hardly more than half the length of the first; third spindle-shaped, longer than the first; bristle as long as the third: *chest dark brown*, clothed with a few black hairs and bristles, *adorned with three gray stripes, the middle one triple; sides, hind part and breast gray, on a dark brown ground: abdomen dark brown with a tawny tinge*, linear, narrower than the chest and much less than twice its length, clothed with black and pale yellow hairs and bristles; *hind borders of the segments hoary, with a tawny tinge;* sexual parts large, black, shining, clothed above with pale yellow silky hairs, and on each side with a tuft of black bristles, beset beneath with black bristles: *legs black*, clothed with short black hairs, armed with black spines; thighs thinly clothed with hoary hairs, armed with two or three white spines; *hind-shanks and feet adorned with tawny down; fore-shanks and base of fore-feet fringed with long, pale yellow hairs;* foot-cushions tawny: *wings nearly colourless, brown along the fore border, towards the tips, and along the greater part of the hind border;* wing-ribs ferruginous; veins black, ferruginous at the base; poisers yellow. Length of the body 6 lines; of the wings 11 lines.

South America.—Columbia.

Asilus Trachalus, Mas.

Niger, capite thoracisque vittis tribus fulvis, pectore cinereo, abdomine cinereo-fulvo, antennis nigris basi ferrugineis, pedibus ferrugineis, tarsis nigris, alis subfulvis.

Body black: head adorned with a tawny covering, clothed behind and beneath with pale yellow hairs, beset behind the eyes with a few black bristles; crown black, clothed with a few black hairs and bristles; face very convex, beset with black bristles towards the feelers, armed with many long whitish spines towards the epistoma: eyes black, slightly bronzed; fore part nearly flat, its facets larger than those elsewhere: sucker clothed at the tip with short tawny hairs; palpi beset with black bristles: feelers black; first and second joints dark ferruginous, beset with black bristles; second much shorter than the first; third spindle-shaped, longer than the first; bristle a little shorter than the third joint: *chest black, clothed with short black hairs*, beset on each side and behind with stout black bristles, *adorned with three indistinct dark tawny stripes; sides and breast tinged with gray: abdomen flat, black, with a grayish tawny tinge*, much less than twice the length of the chest, clothed with very short black hairs, tapering from the base to the tip, which is shining and beset with black bristles; hind borders of the segments armed on each side with black spines; first segment beset on each side with a few hoary hairs and pale yellow spines: *legs ferruginous*, clothed with short black hairs, armed with black spines; *feet black;* claws dark ferruginous at the base; foot-cushions dark tawny: *wings with a slight tawny tinge;* wing-ribs and veins tawny; poisers pale yellow. Length of the body $5\frac{1}{2}$—$6\frac{1}{2}$ lines; of the wings 10—12 lines.

Van Dieman's Land.

Asilus Lycorius, Fem.

Niger, thoracis vittis tribus pectore abdominis segmentorum marginibus posticis ventreque canis, antennis pedibusque nigris, alis subcinereis apice obscurioribus.

Body black: head adorned with a tawny covering in front, whitish and thickly clothed with white hairs behind and beneath; crown beset

with black hairs and with two stout black bristles; hind part with a row of black bristles; face very convex, armed towards the feelers with black bristles and towards the mouth with pale yellow bristles: eyes bronzed; fore part nearly flat, with large facets: sucker clothed with pale hairs; palpi thickly beset with long black hairs: feelers black; first and second joints beset with black bristles; second hardly half the length of the first; third spindle-shaped, hardly longer than the first; bristle a little shorter than the third joint, linear for half the length from the base, a little broader and slightly spindle-shaped from thence to the tip: *chest adorned with three hoary stripes*, which are beset with rows of black bristles; *each side, hind part and breast with a hoary covering: abdomen thinly clothed with hoary hairs*, narrower than the chest and less than twice its length, tapering from the base to the tip, *which is shining and compressed; under side and hind borders of the segments hoary, the latter with a tawny tinge: legs black*, beset with black bristles; thighs clothed towards the base with a few hoary hairs; shanks and feet adorned with a fringe of very short tawny hairs; claws dark ferruginous towards the base, much curved towards the tips; foot-cushions pale tawny: *wings pale gray, dark gray towards the tips;* wing-ribs and veins black; poisers yellow. Length of the body 5 lines; of the wings 9 lines.

South America.

Asilus luctificus, Fem.

Nigro-cinereus, abdominis segmentorum marginibus posticis canis, antennis pedibusque nigris, tibiis fulvis, alis subcinereis.

Body black: head thickly clothed behind and beneath with long hoary hairs, beset behind the eyes with a row of black bristles; crown clothed with black hairs; face very convex towards the epistoma, thickly beset with black bristles towards the feelers and with white bristles towards the mouth: eyes coppery; fore part nearly flat, its facets a little larger than those elsewhere: sucker clothed at the tip with tawny hairs; palpi clothed with long black hairs: feelers black; first and second joints of equal length, thickly beset with black bristles; third spindle-shaped, a little longer than the second joint; bristle rather stout, a little longer than the third joint: *chest and breast slightly tinged with gray:* chest clothed with black hairs and bristles which are most thick behind: *breast partly clothed with hoary hairs: abdomen thinly clothed with hoary hairs*, much narrower

than the chest and full twice its length, tapering from the base to the tip *which is compressed and shining; hind borders of the segments adorned with hoary bands*, armed on each side with a pair of white spines: *legs black*, clothed with short black hairs, armed with black and white spines: thighs thinly clothed with hoary hairs; *shanks tawny, with black tips;* feet covered beneath with tawny down; foot-cushions tawny: *wings slightly gray;* wing-ribs and veins black; poisers yellow. Length of the body 7 lines; of the wings 11½ lines.

Van Dieman's Land.

Asilus obumbratus, Fem.

Niger, capite subtus albo, thorace vittis quinque fulvis ornato, pectore cano, abdomine nigro-fusco segmentorum marginibus posticis canis, antennis nigris, pedibus fulvis, femoribus piceis, alis subcinereis.

Body black: head adorned with a yellowish brown covering, white and clothed with white hairs behind and beneath, beset behind the eyes with black bristles; a few black hairs on the crown; face very slightly convex towards the epistoma, thickly beset with black bristles: eyes bright coppery; fore part nearly flat, its facets larger than those elsewhere: sucker clothed at the tip with tawny hairs; palpi clothed with black hairs: feelers black: first and second joints clothed with black hairs; second much shorter than the first; third conical, a little longer than the first; bristle rather stout, longer than the third joint: chest black, clothed with black hairs, beset on each side and behind with black bristles: *adorned with five pale tawny stripes*; middle stripe very indistinct; each side pair united in front and behind: *breast hoary: abdomen dark brown*, narrower than the chest and much more than twice its length, clothed with short black hairs, and towards the base with longer hoary hairs, nearly linear for more than half the length, very slightly tapering from thence to the tip, which is compressed and shining; *hind borders of the segments hoary; hoary bands along the hind borders of the first and second segments: legs tawny*, clothed with very short hoary hairs, armed with black spines; *thighs pitchy;* claws black: *wings very slightly tinged with gray;* wing-ribs tawny; veins black, tawny at the base; poisers tawny. Length of the body 5 lines; of the wings 8 lines.

New South Wales.

Asilus paterculus, Fem.

Fuscus, capite aureo, thoracis lateribus fulvis, metathorace pectoreque canis, abdomine piceo lateribus ventreque ferrugineis, antennis fulvis apice nigris, pedibus rufis, femoribus nigro vittatis, tibiis posticis apice tarsisque piceis, alis limpidis.

Head adorned with a golden covering, clothed beneath with a few whitish hairs; face whitish or pale yellow; epistoma armed with eight or ten white spines: eyes black; a few very large facets in front which is somewhat flat: sucker black: feelers tawny; second joint rather longer than the first; third tapering from the base to the tip, full twice the length of the second joint; bristle small, black, like a spine, a little more than one-third of the length of the third joint: *chest brown, tawny on each side; hind chest and breast hoary; abdomen pitchy above, ferruginous on each side and beneath*, slightly tapering from the base to the tip, which is armed with short black spines: legs red armed with white spines; *a black stripe on each thigh; feet and tips of the hind-shanks pitchy;* claws black, pitchy at the base; foot-cushions pale tawny: *wings colourless;* wing-ribs ferruginous; veins black, ferruginous at the base; poisers tawny, with yellow knobs. Length of the body $2\frac{1}{2}$—3 lines; of the wings 5—6 lines.

East Indies.

Asilus præfiniens, Mas.

Fuscus, thoracis lateribus metathorace pectoreque canis, pedibus fulvis, tarsis apice piceis, alis limpidis.

Body brown: head clothed with whitish hairs, beset behind the eyes with black bristles: a few black hairs on the face: sucker and palpi black: eyes bronzed; fore part rather flat, its facets larger than those elsewhere: chest beset with a few black bristles; *sides, hind part and breast hoary:* abdomen very slightly tapering from the base to the tip, clothed with short pale hairs, narrower than the chest and about twice its length: *legs tawny*, beset with black and whitish bristles; *feet pitchy towards the tips;* claws black, tawny at the base; foot-cushions yellow; *fore-legs pale tawny: wings colourless;* wing-ribs pitchy; veins black, tawny at the base; poisers tawny, with yellow knobs. Length of the body 3 lines; of the wings 6 lines.

East Indies.

Asilus villicatus, Mas et Fem.

Fuscus, capite pectoreque canis, thorace vittis quatuor nigris ornato, abdomine cinereo-fusco apice nigro : fem. *compresso, fasciis ventreque canis, antennis pedibusque nigris, tibiis tarsisque basi ferrugineis, alis cinereis.*

Head adorned with a hoary covering which has a tawny tinge above, thickly clothed beneath with long hoary hairs, beset behind the eyes with black bristles; a few black hairs on the crown, which is black and shining: face prominent and thickly beset with black bristles towards the epistoma: eyes bronzed; fore part nearly flat, its facets a little larger than those elsewhere: sucker and palpi black; palpi clothed with hoary hairs: feelers black; the bristle a little shorter than the third joint: *chest pale brown*, beset with black bristles, *adorned with four broad black stripes: breast hoary: abdomen tinged with grayish brown*, thinly clothed with hoary hairs, more than twice the length of the chest, tapering from the base towards the tip, which in the female is compressed, black and shining, and near one-fourth of the length of the preceding part; *under side and fore borders of the segments hoary: legs black*, clothed with hoary hairs, armed with black spines; *shanks and feet ferruginous towards the base*, covered beneath with tawny down; foot-cushions pale tawny: *wings gray*; wing-ribs pitchy; veins black, pitchy at the base; poisers tawny. Length of the body 5—6 lines; of the wings 7—9 lines.

New South Wales.

Asilus Eupator, Fem.

Niger, thoracis vittis tribus pectore abdominisque segmentorum marginibus posticis cinereis, ventre piceo, antennis pedibusque nigris, tibiis basi fulvis, alis subfuscis.

Body black: head clothed on the crown with a few black hairs, adorned in front with a tawny covering, hoary and clothed with white hairs behind and beneath, beset behind the eyes with black bristles: face projecting towards the epistoma, beset with a few black bristles and with about four pale yellow spines; a few black bristles on the sides of the peristoma; sucker clothed at the tip with short tawny hairs: palpi beset with long black bristles: feelers black; first and second joints beset with black

bristles; second much shorter than the first; third tapering from near the base to the tip, shorter than the first; bristle much longer than the third joint: *chest adorned with three gray stripes*, beset with a few black hairs and bristles, the latter chiefly on the hind part; *sides, hind part and breast tinged with gray:* abdomen nearly spindle-shaped, full twice the length of the chest, *clothed with short black hairs*, shining and compressed at the tip; a tuft of black hairs and bristles on each side of the first segment; *hind borders of the segments gray; under side pitchy: legs black*, beset with black hairs and spines; shanks and feet adorned with tawny down; *shanks tawny towards the base;* claws dark tawny at the base; foot-cushions pale tawny: *wings very slightly tinged with brown;* wing-ribs tawny; veins black, tawny at the base; poisers tawny. Length of the body 6 lines; of the wings 10 lines.

Brazil.

Asilus Tatius, Mas.

Niger, thoracis vittis quatuor pectoreque cinereis, antennis pedibusque nigris, alis sublimpidis costa venarumque marginibus fuscis apice subcinereis.

Body black: had adorned in front with a dark tawny covering, whitish and clothed with white hairs beneath, thickly beset behind the eyes with black bristles; crown brown, thickly clothed with long black hairs; face prominent, thickly clothed with long black hairs towards the feelers and on each side, and with long white hairs in front, the former are the most numerous: eyes bronze-black; fore part nearly flat, its facets larger than those elsewhere: sucker clothed at the tip with short pale hairs; palpi clothed with long black hairs: feelers black; first and second joints thickly beset with long black bristles, second shorter than the first; third spindle-shaped, longer than the first; bristle a little shorter than the third joint: *chest clothed with long black hairs and bristles, adorned with four gray stripes: breast tinged with gray:* abdomen slightly tapering from the base to the tip, a little narrower than the chest and much less than twice its length, *clothed with hoary hairs*, which are most frequent on each side; tip shining: *legs black*, clothed with hoary hairs, thickly beset with black spines and bristles; foot-cushions dark tawny: *wings nearly colourless, brown along the fore borders and on the borders of the veins in the disk, grayish at the tips:* wing-ribs dark tawny; veins black, dark tawny at the

base; poisers tawny. Length of the body 5½ lines; of the wings 11 lines.

Columbia.

Asilus Ctesicles, Mas.

Niger aureo tectus, thorace nigro quadrivittato, pectore et metathorace canis, abdomine cervino, antennis nigris, pedibus fulvis, femoribus et tibiis apice tarsisque nigris, alis subfulvis apice fuscis.

Body black: head adorned with a tawny covering, paler behind and beneath where it is clothed with whitish hairs; a few black bristles on each side of the crown; hind part clothed with pale yellow hairs, beset with very few black bristles; face very convex towards the epistoma and beset with a few black and with more long pale yellow bristles; a few pale yellow hairs on each side of the peristoma; eyes bronzed; fore part flat, its facets much larger than those elsewhere: sucker black, clothed at the tip with short pale tawny hairs; palpi black, clothed with many long black hairs: feelers black; first and second joints beset with very few black bristles, second about half the length of the first; third tapering from the base to the tip, a little shorter than the first: bristle slightly widened at the tip, more than twice the length of the third joint: *chest adorned with a golden covering*, beset with a few black bristles, *having four black stripes, of which the middle pair are narrow and straight, the outer pair are broader, spindle-shaped and interrupted by two oblique bands; breast and hind part of the chest hoary: abdomen fawn colour*, tapering from the base to near the tip, narrower than the chest and less than twice its length, thinly clothed with pale hairs; sexual parts large, black, shining: *legs bright tawny*, thinly clothed with very short black hairs, armed with black spines; *feet and tips of the thighs and of the shanks black;* foot-cushions bright tawny: *wings with a slight tawny tinge, brown towards the tips;* wing-ribs and veins black; poisers tawny with pitchy knobs. Length of the body 7 lines; of the wings 12 lines.

South America.

Asilus opulentus, Mas.

Nigro-fuscus fulvo-hirtus, capite flavescente, pectore cinereo, abdominis segmentorum marginibus posticis fulvis, antennis nigris, pedibus rufis, alis fuscis ad discum limpidis.

Allied to *A. chrysites*. *Body black:* head adorned with a pale yellow covering, clothed above with black hairs, beset behind the eyes with a row of black bristles, thickly clothed beneath with long, bright, pale yellow hairs; face prominent, thickly beset with black bristles; epistoma armed with some whitish bristles: eyes black; fore part flat, composed of large facets: sucker clothed at the tip with tawny hairs; palpi tawny, beset with black bristles: feelers black: first and second joints beset with long black bristles; third spindle-shaped; bristle much shorter than the third joint: *chest tinged with brown and on each side with a tawny hue*, clothed with black hairs above, with tawny hairs and black spines on each side; scutcheon armed with black spines; *breast gray*, partly clothed with tawny hairs: *abdomen deep brown*, tapering from the base to the tip, nearly twice the length of the chest, *thickly clothed with bright golden hairs; hind borders of the segments pale tawny above, hoary on the under side* which is thinly clothed with black hairs: *legs red*, clothed with black hairs, beset with black spines and bristles; foot-cushions yellow; claws black, red at the base: *wings pale brown; a broad colourless stripe proceeds from the base through the disk for three-fourths of the length, and is continued along some of the veins to the hind border;* wing-ribs ferruginous; veins black, ferruginous at the base and along the fore border; poisers tawny. Length of the body 10 lines; of the wings 18 lines.

East India.

Asilus leonides, Mas.

Ferrugineus, capite subtus albido, thorace vittis quatuor fuscis ornato, abdomine fulvo basi piceo apice nigro, antennis basi rufis, pedibus rufis, alis fulvis.

Head adorned above with a tawny covering, whitish and clothed with white hairs behind, and beset behind the eyes with black bristles; face slightly convex, thinly clothed towards the feelers with black hairs, armed

in front with some black spines beyond which it is thickly clothed with long pale yellow and whitish hairs: eyes bronzed; fore part nearly flat, its facets larger than those elsewhere: sucker black, tawny at the tip, clothed with long pale yellow hairs; palpi tawny, thickly clothed with long pale yellow hairs and bristles, and with a few black bristles: first and second joints of the feelers red, beset with short black bristles; second much shorter than the first: *chest and breast ferruginous:* chest beset with a few black hairs and bristles, *adorned with four brown stripes*, of which the middle pair are narrow, linear and entire, the side pair broader, shorter and interrupted; *breast tinged with gray*, clothed with tawny hairs: *abdomen bright tawny*, less than twice the length of the chest, clothed with tawny hairs, which are longest and most thick towards the base, *pitchy and obconical from the first to the third segment*, narrower and linear from thence to the tip *which is dark red*, shining and thickly clothed with black hairs: *legs dark red*, clothed with short black hairs, armed with black spines: thighs clothed with hoary hairs; claws black; foot-cushions brownish tawny: *wings tawny;* wing-ribs ferruginous; veins pitchy, ferruginous towards the base and along the fore border; poisers tawny. Length of the body 13 lines; of the wings 20 lines.

Rio Janeiro.

Asilus Gavius, Fem.

Niger, thoracis vittis tribus pectore ventreque canis, capite subtus abdominisque segmentorum marginibus posticis albidis, antennis nigris articulo 3o basi fulvo, pedibus nigris, tibiis apice tarsisque subtus fulvis, alis subcinereis ad costam fuscis.

Body black; head adorned with a tawny covering in front, whitish and clothed with white hairs behind and beneath, beset behind the eyes with black bristles; crown brown, beset with black hairs and with four black bristles; face very prominent, beset with black bristles, and towards the epistoma with long bright yellow bristles, the latter are more clustering than the former, and there are a few of them along the sides of the peristoma: eyes bronzed; fore part flat, facets of its disk larger than those elsewhere: sucker clothed at the tip with a few short pale tawny hairs; palpi beset with long black hairs: feelers black; first and second joints beset with black bristles, second hardly more than half the length of the first; third tawny at the base, tapering from near the base to the tip, longer

than the first; bristle shorter than the third joint: chest thinly clothed with black hairs and bristles, *adorned with three hoary stripes; sides, hind part and breast hoary:* abdomen clothed with short black hairs, *adorned with white hairs on each side*, full twice the length of the chest, slightly tapering from the base to the tip, which is compressed and shining: *hind borders of the segments whitish; sides and under side hoary: legs black*, clothed with short black hairs, armed with black spines and bristles; *under side of the shanks towards the tips and of the feet dark tawny;* foot-cushions pale tawny: *wings light gray, brown along the fore borders towards the tips;* wing-ribs pitchy; veins black; poisers bright yellow. The left wing of the specimen described has two cross-veins at the base of the second submarginal areolet. Length of the body 5½ lines; of the wings 10 lines.

Brazil.

Genus OMMATIUS, *Illiger.*

Ommatius jaculator, Mas.

Canus, capite albo, abdomine cinereo, segmentorum marginibus posticis ferrugineis, antennis nigris, pedibus fulvis, alis sublimpidis apice cinereis.

Body black: head adorned with a white covering, clothed behind and beneath with white hairs, beset behind the eyes with a few black bristles; two black hairs on the tubercle of the eyelets; face quite flat, beset with six long slender black bristles, fringed in front with white hairs and with two white spines: eyes brassy; fore part nearly flat, its facets a little larger than those elsewhere: sucker clothed at the tip with tawny hairs: feelers black; first and second joints beset with short black bristles: *chest and breast with a hoary covering;* hind part of the chest beset with a few black bristles: *abdomen gray*, a little narrower than the chest and more than twice its length, very slightly tapering from the base to the tip, *which is black and shining* and clothed with black hairs: *hind borders of the segments ferruginous: legs tawny*, clothed with very short black hairs, armed with black spines; thighs thinly clothed with short hoary hairs: knees and claws black: *wings nearly colourless, with gray tips;* wing-ribs tawny; veins black, tawny at the base; poisers tawny. Length of the body 4½ lines; of the wings 7 lines.

Africa.

Ommatius nanus, Fem.

Fulvo-cinereus, capite pectoreque albidis, abdomine fusco-cano apice fulvo, antennis nigris, pedibus fulvis, alis limpidis.

Head adorned with a white covering, clothed with white hairs; a few black hairs on the face: eyes bronzed; fore part rather flat, its facets larger than those elsewhere: sucker, palpi and feelers black; third joint of the feelers conical, much longer than the second; bristle about thrice the length of the third joint: *chest gray, with a slight tawny tinge*, beset with a few black and whitish bristles: *breast whitish: abdomen brownish hoary*, linear, narrower than the chest and about twice its length, slightly tapering towards the tip, *which is tawny*, clothed with very short black hairs, beset on each side with a few whitish bristles; *hind borders of the segments hoary: legs tawny*, clothed with short pale hairs, beset with a few black and whitish bristles; *feet pitchy towards the tips;* claws black, tawny at the base; foot-cushions pale tawny: *wings colourless;* wing-ribs and poisers tawny; veins black, tawny at the base. Length of the body 3½ lines; of the wings 5 lines.

Var. β.

Canus, capite albo, pedibus fulvis, antennis tarsisque nigris, alis limpidis.

Body hoary: head white, beset above with very few black bristles, clothed beneath with white hairs; face quite flat, armed on the epistoma with a few white spines: eyes adorned with iridescent colours: sucker clothed at the tip with tawny hairs; palpi beset with black bristles: first and second joints of the feelers beset with a few black bristles: feet black, dark tawny at the base; foot-cushions dark tawny. Length of the body 4 lines; of the wings 7 lines.

East India.

Genus ATOMOSIA, *Macquart.*

Atomosia nigroænea, Fem.

Ænea, punctata, antennis pedibusque nigris, alis cinereis.

Body brassy: head adorned with a dark tawny covering, having a hoary stripe behind the eyes, beset with a few black hairs and bristles: eyes black; fore part flat, its facets very large: sucker black, tawny at the tip: palpi black, clothed with black hairs: feelers black; third and following joints nearly twice the length of the first and of the second: chest and abdomen thickly punctured, clothed with very short, shining, yellow hairs: chest beset with a few black bristles: abdomen linear, a little narrower than the chest and less than twice its length: legs black, clothed with black hairs and bristles; a few white hairs beneath the thighs; shanks adorned beneath with a fringe of white hairs; feet covered beneath with tawny down; foot-cushions pitchy: wings gray; wing-ribs and veins black; poisers yellow. Length of the body 3 lines; of the wings 5 lines.

Columbia.

CORMANSIS, n. g.

Atomosiæ similis: alarum venæ transversæ disjunctæ.

Like *Atomosia*, but the two cross-veins which bound the discoidal and fourth posterior areolets are not in the same line.

Cormansis Halictides, Fem.

Niger, capite fulvo, antennis nigris, pedibus fulvis, alis cinereis.

Body black; head tawny and thickly covered with short tawny hairs above, hoary and clothed with whitish hairs beneath: eyes reddish; fore part nearly flat, all the facets very small: sucker and feelers black: chest thickly clothed with short tawny hairs: abdomen slightly spindle-shaped, a little broader than the chest and nearly twice its length, clothed with pale tawny hairs, which are most prevalent along each side: legs tawny, thinly clothed with yellow hairs, beset with a few black bristles; thighs black with tawny tips; feet dark tawny; claws black, tawny at the base; foot-cushions pale tawny: wings gray; wing-ribs and poisers tawny: veins

black, tawny towards the base and along the fore borders. Length of the body 4 lines; of the wings 7 lines.

East India.

Genus LEPTOGASTER, *Meigen.*

Leptogaster multicincta, Mas.

Fusca, capite albo, pectore cano, abdomine fulvo segmentorum discis piceis, antennis nigris basi fulvis, pedibus flavis fulvo picco nigroque cinctis, alis limpidis.

Head tawny, adorned with a white covering, clothed with a few white hairs: eyes brassy, meeting on the crown; a few very large facets in front, which is flat: sucker black: feelers black; first and second joints tawny; chest brown gray and beset with a very few black bristles on each side: breast hoary: abdomen pitchy, nearly four times the length of the chest; appendages of the tip very large; segments adorned with tawny bands, and on each side with tawny, triangular spots; under side tawny: thighs pale yellow, tawny towards the tips which are black; hind-thighs club-shaped, pale yellow for full half the length from the base; this colour is divided by a pitchy band from the tawny hue, which extends to the black tips; tips of the shanks pitchy; each hind-shank adorned with a pitchy band; feet tawny; pale yellow at the base, pitchy at the tips; claws black: wings colourless; wing-ribs tawny; veins black, tawny at the base; poisers pale tawny. Length of the body 4½ lines; of the wings 6½ lines.

South America.

PHENEUS, n. g.

Antennis articuli 1us et 2us breves; 3us longior, conicus; seta articulis præcedentibus multo longior: pedes postici longi, validi: areolæ submarginales duæ; areolæ posticæ sex, 1a et 3a clausæ; 2a, 4a, 5a et 6a apertæ.

Male. Eyes nearly meeting on the crown: sucker short, not much formed for carnivorous habits; first and second joints of the feelers short; third longer, conical: bristle longer than all the preceding joints: hind-legs much longer and stouter than the two other pair; claws and foot-cushions very small: two submarginal areolets; six posterior areolets; the first and third closed near the border of the wing; the other four open.

PHENEUS TIBIALIS, Plate 4, fig. 3.

Mas. *Fulvus, capite antico albo, abdominis apice obscuriore, antennis pedibusque fulvis, tibiis posticis tarsisque apice nigris, alis fulvis margine postico cinereis fascia apiceque fuscis.*

Body tawny: head adorned in front with a white covering; eyes brassy; sucker and palpi pale tawny: feelers tawny; bristle black: abdomen slightly increasing in breadth from the base to the tip, narrower than the chest and nearly four times its length: tip dark tawny: legs tawny; feet black towards the tips; hind-shanks black for more than half the length from the tips: wings tawny along the fore border, pale gray along the hind border; a brown band across the middle; tips brown; wing-ribs tawny; veins black, tawny towards the base and along the hind border; poisers large; pale tawny, with darker knobs. Length of the body 4 lines; of the wings 7 lines.

Jamaica.

INSECTA SAUNDERSIANA, &c.

Fam. XYLOTOMÆ, *Meigen.*

Genus THEREVA, *Latr.*

THEREVA SEQUA, Mas et Fem.

Cinerea, capite pectoreque albis, fem. *thoracis vitta fusca*, mari *abdomine nigro subvittato apice fulvo*, fem. *abdomine fusco maculis trigonis albis ornato, pedibus nigris, tarsis basi tibiisque fulvis, alis limpidis.*

Male. Body black, thickly clothed with white hairs: *head brilliant white in front:* sucker black: chest gray; breast white: abdomen gray above, white beneath, very much longer than the chest; *an indistinct black stripe along the back;* hind borders of the segments adorned with white lustre; *tip tawny*, with a little tuft of black hairs on each side: legs black, beset with a few black bristles, which are chiefly on the shanks; hips and thighs adorned with a white covering, clothed with short white hairs; shanks tawny, with black tips; feet tawny at the base; foot-cushions dark tawny: wings colourless; poisers black; their knobs pale yellow, black at the base.

Fem. Body thinly clothed with short white hairs: *head adorned with a silvery white covering: chest adorned with a very broad pale brown stripe;* scutcheon armed with four long black bristles: abdomen brown: first segment white; *second and third adorned with white triangular spots, resting on the sides of their hind borders; fourth with a white spot resting on each side of its fore-border; fifth white, with the exception of a middle triangular brown spot on its hind border;* sixth white; seventh black, shining; tip armed with a circlet of black spines: knobs of the poisers black, pale yellow from half their length to the tips.

Length of the body 4—4½ lines; of the wings 7—8 lines.

East India.

Thereva sequens, Mas et Fem.

Cinerea, capite pectoreque albis, abdomine mari *apice fulvo, antennis pedibusque nigris, tarsis basi tibiisque fulvis, alis subcinereis.*

Male. Body black, thickly clothed with white hairs, narrower than that of *T. sequa: head brilliant white in front:* sucker and palpi pitchy: chest gray, breast white: abdomen white, full twice the length of the chest, more linear than that of *T. sequa*, conical towards *the tip which is tawny* and has a little tuft of black hairs on each side: legs black, beset with a few black bristles, which are chiefly on the shanks; hips and thighs adorned with a white covering, clothed with short white hairs; shanks tawny with black tips; feet tawny at the base; foot-cushions dark tawny: wings slightly gray; poisers tawny, their knobs excepting the base pale yellow.

Fem. Body thinly clothed with short white hairs, *completely adorned with a white covering, which has a yellow tinge above:* scutcheon and hind part of the chest beset with black bristles: tip of the abdomen armed with a circlet of black spines: poisers black; their knobs tawny, black at the base.

Length of the body 3½ lines; of the wings 6 lines.

East India.

Thereva persequa, Fem.

Cinerea, capite albo, thoracis vittis quatuor pectoreque canis, abdomine antennisque nigris, pedibus ferrugineis, tarsis nigris basi piceis, alis cinereis venarum marginibus subfuscis.

Body black: *head* very shining above, *silvery white in front and beneath where it is clothed with white hairs:* sucker black; palpi tinged with gray, thickly clothed with white hairs: *chest gray, dull, adorned on each side with a pair of hoary stripes, a pitchy tinge between each pair;* sides and scutcheon armed with black bristles: breast hoary, clothed with white hairs: *abdomen black, shining, clothed with very short black hairs,* slightly decreasing in breadth from the base to the tip, near twice the length of the chest; hind borders of the first and second segments fringed with short white hairs; tip armed with a circlet of black spines: *legs ferruginous;* hips black, tinged with hoary, clothed with white hairs; thighs clothed with a few very short white hairs; shanks beset with black bristles; *feet black, pitchy at the base;* foot-cushions pitchy: *wings gray, slightly tinged with*

brown along the borders of the veins; poisers tawny; their knobs black with a hoary tinge. Length of the body 3¼ lines; of the wings 5 lines.

East India.

Thereva nivaria, Fem.

Nigra, albo-hirta, pectore ventreque cinereis, abdominis segmentorum marginibus posticis luridis, antennis pedibusque nigris, alis subcinereis.

Body black, clothed with black hairs: head clothed beneath with white hairs: sucker pitchy, clothed with tawny hairs: *breast and underside of the abdomen gray, the former partly clothed with whitish hairs:* abdomen spindle-shaped, very much longer than the chest; *hind borders of the segments lurid;* a large tuft of white hairs on each side of the base: *legs black*, clothed with short black hairs, beset with a few black bristles; foot-cushions pitchy: *wings slightly gray;* wing-ribs pitchy; *veins* black, *strongly marked*, pitchy towards the base; brands brown; poisers pitchy. Length of the body 5 lines; of the wings 9 lines.

East India.

Thereva Indica, Fem.

Nigra, pectore ventre abdominisque segmentorum marginibus posticis cinereis, antennis nigris, pedibus fulvis, alis cinereis.

Body black: *head* shining above, *tinged with gray and clothed with hoary hairs beneath:* sucker and feelers black: *breast tinged with gray:* abdomen spindle-shaped, very much longer than the chest; *hind borders of the segments and underside tinged with gray: legs tawny*, beset with a few black bristles; claws black: wings gray; brands brown; wing-ribs pitchy; veins black, pitchy at the base; poisers pitchy. Length of the body 5 lines; of the wings 9 lines.

East India.

Thereva hebes, Mas.

Nigra, albo-hirta, antennis pedibusque nigris, femoribus cinereis, tarsis basi tibiisque fulvis, alis sublimpidis.

Body black, thinly clothed with hoary hairs: *head beneath and breast gray, clothed with white hairs:* mouth black: third joint of the feelers slightly tapering from the base towards the tip: *abdomen* tapering from the base to the tip, a little narrower and much longer than the chest, *its sides clothed with white hairs: legs black*, beset with black bristles which are mostly on the shanks; hips and thighs tinged with gray, clothed with hoary hairs; *shanks tawny with black tips; feet tawny at the base;* foot-cushions dark tawny: wings almost colourless; wing-ribs pitchy; veins black, some of them tawny at the base and along the fore border; poisers black. Length of the body 4 lines; of the wings 7½ lines.

Tasmania.

Thereva inconspicua, Mas.

Nigro-cinerea, antennis pedibusque nigris, femoribus canis, tarsis basi tibiisque fulvis, alis subcinereis.

Body black: *head* beset behind with black bristles, *clothed beneath with hoary hairs, adorned with a covering which is tawny above, hoary beneath:* sucker pitchy with a dark tawny tinge: feelers black; third joint suddenly tapering towards the tip: chest clothed with short black hairs: *breast tinged with gray, clothed with hoary hairs: abdomen* very slightly tapering from the base till near the tip, which is conical, much longer than the chest, *grayish-hoary and clothed with hoary hairs on each side;* hind borders of the third and fourth segments tawny, which hue is perhaps only occasional: *legs black*, beset with black bristles which are mostly on the shanks; hips and thighs tinged with hoary, clothed with whitish hairs; *shanks tawny with black tips; feet tawny towards the base;* foot-cushions dark tawny: wings slightly gray; wing-ribs and veins tawny; veins black towards the tips; poisers tawny with pitchy knobs. Length of the body 3½ lines; of the wings 7½ lines.

New South Wales.

THEREVA VARIANS, Fem.

Nigra, pectore abdomineque fulvis, hoc vittis fuscis antice una postice duabus ornato, antennis pedibusque fulvis, femoribus tibiis tarsorumque articulis apice nigris, alis subalbidis fusco sex-maculatis.

Body black: *head* beset behind with black bristles, *adorned with a covering which is tawny above, but hoary in front and beneath where it is clothed with very few short white hairs:* eyes bright coppery red; eyelets pitchy: sucker and *feelers tawny*; *palpi pale yellow:* scutcheon armed with four black bristles: breast tawny with a hoary tinge: *abdomen tawny*, tapering from the base to the tip, about twice the length of the chest, *adorned above with a brown stripe, which occupies the whole of the segments along more than half the length from the base, and is then divided and extends in two slender stripes towards the tip, but is interrupted: legs tawny*, clothed with short black hairs and bristles, the latter are chiefly on the shanks; tips of the thighs, of the shanks and of the joints of the feet black; fourth and fifth joints of the feet and claws black; foot-cushions dark tawny; *wings rather short, dingy white, adorned with six brown marks which cloud the cross-veins;* wing-ribs yellow; veins tawny, yellow towards the base, black towards the tips; poisers tawny. Length of the body 3¼ lines; of the wings 5 lines.

Van Diemen's Land.

THEREVA LATERALIS, Fem.

Flavo-fusca, pectore abdomineque canis, hujus disco antennisque nigris, pedibus fulvis femoribus anticis tarsisque nigris, alis subcinereis basi et ad costam fulvis.

Body black: *head adorned with a yellowish brown covering*, thickly clothed with black hairs above and with white hairs beneath: eyes pitchy: sucker and feelers black: *chest tinged with yellowish brown*, beset on each side with black bristles: breast hoary, clothed with white hairs: abdomen much longer than the chest, linear till near the tip where it is conical, adorned with a hoary covering, clothed with white hairs: disk above mostly black: *legs tawny;* shanks armed with black bristles: *feet black, tawny at the base; fore-thighs black with tawny tips;* foot-cushions pale tawny: *wings slightly gray, bright tawny at the base and along the fore border;*

wing-ribs tawny; veins pitchy, tawny at the base and beneath the fore border; poisers pitchy. Length of the body 5 lines; of the wings 11 lines.

Thereva apicalis, Fem.

Fulva, pectore cano, abdominis basi segmentorum marginibus posticis ventreque ferrugineis, antennis nigris, pedibus fulvis, alis subcinereis.

Body black, *adorned with a dark tawny covering:* head clothed above with black hairs, hoary in front and beneath where it is clothed with white hairs: eyes red: mouth pitchy; palpi yellow: feelers black: breast hoary, clothed with white hairs: abdomen obconical, much longer than the chest; *hind borders of the segments pale ferruginous, clothed with pale hairs; underside and one-third of the back from the tip pale ferruginous: legs tawny,* clothed with short pale hairs, beset with black bristles: wings pale gray; wing-ribs and veins tawny; poisers yellow with pitchy knobs. Length of the body $5\frac{1}{2}$ lines; of the wings 10 lines.

Thereva dejecta, Fem.

Nigra, abdominis segmentorum marginibus posticis ferrugineis, antennis pedibusque nigris, tibiis fulvis, alis limpidis.

Body black, *thinly clothed with hoary hairs:* eyes pitchy: sucker and feelers black: abdomen obconical, longer than the chest; *hind borders of the segments ferruginous:* legs black, beset with black hairs and bristles: *shanks dark tawny with black tips;* foot-cushions tawny; *fore shanks tawny for only half the length from the base:* wings colourless; wing-ribs and veins tawny, the latter pitchy towards the tips; poisers pitchy. Length of the body 3 lines; of the wings 6 lines.

Genus CHIROMYZA, *Wiedemann.*

Chiromyza prisca, Fem.

Fulva, capite nigro, thorace vittis tribus fuscis ornato, abdomine fusco fasciis tribus abbreviatis fulvis ornato, antennis pedibusque fulvis, alis sublimpidis.

Body tawny: head black: eyes black; all the facets very small: feelers tawny: *chest adorned with three brown stripes,* which are disposed like those of a *Chironomus*, the middle one slender and in advance of the

other two, which are broad: *abdomen brown*, a little narrower than the chest and about twice its length; *tip and three short dorsal bands tawny;* legs slender, tawny: wings almost colourless: wing-ribs and veins tawny, the latter darker towards the tips; poisers tawny. Length of the body 2½ lines: of the wings 6 lines.

Van Diemen's Land.

CHIROMYZA FULVICAPUT.

Fusca, capite fulvo nitente, thoracis lateribus ad alas fulvis, antennis pedibusque piceis, femoribus apice tibiisque basi fulvis, alis subcinereis.

Body dark brown, clothed with tawny down: *head tawny*, smooth, shining, flat in front: eyes black, flat in front; facets small: first and second joints of the feelers pitchy: *chest tawny on each side about the base of the wings:* abdomen tapering from the base to the tip, about twice the length of the chest: *legs pitchy; thighs towards the tips and shanks at the base tawny;* wings pale gray; wing-ribs and veins dark tawny; poisers pale tawny. Length of the body 3½ lines; of the wings 7 lines.

New South Wales?

Fam. LEPTIDES, *Meigen.*

Genus RHAGIO, *Olivier.*

RHAGIO ALUMNUS, Mas.

Fuscus, thoracis lateribus pectoreque fulvis, abdomine nigro subtus fulvo, antennis pedibusque fulvis, tarsis piceis, alis subcinereis ad costam subfuscis apice fusco maculatis.

Body brown: head clothed beneath with yellow hairs: eyes bronze; all the facets very small: sucker and palpi pale tawny: feelers tawny, very short; bristle black, about four times the length of the preceding joints: *breast and sides of the chest tawny*, the former with a slight hoary tinge: *abdomen tawny*, linear, narrower than the chest and about twice its length; segments *black above with the exception of triangular tawny spots resting on the sides of the hind borders of the segments: legs* slender, *tawny*, clothed with very short black hairs; thighs and foot-cushions pale tawny; *feet pitchy, black towards the tips:* wings very pale gray with a tawny tinge

along the fore border as far as the brand, which is dark brown; *a large pale brown spot beneath the fore border at the tip;* wing-ribs tawny; veins black, slightly clouded with brown, tawny towards the base; poisers tawny with pitchy knobs. Length of the body 3 lines; of the wings 6 lines.

South America.

Genus LEPTIS, *Fabr.*

Leptis atrata, *Meig.*

New South Wales.

Leptis clara, Mas.

Atra, antennis nigris, pedibus flavis, tarsis apice piceis, alis limpidissimis.

Body deep black, velvet-like: head hoary beneath: eyes red: mouth and feelers black: abdomen linear, longer than the chest and about half its breadth: *legs pale yellow*, very slender; hips black; *feet pitchy towards the tips: wings colourless, very transparent;* brands brown, large; wing-ribs tawny; veins black, tawny towards the base; poisers tawny. Length of the body $2\frac{3}{4}$ lines; of the wings $5\frac{1}{2}$ lines.

South America.

Leptis lucifera, Mas et Fem.

Atra, aureo-pilosa, pectore cano, abdomine pilis argenteis fasciato, antennis nigris, pedibus fulvis, alis fuscis limpido maculatis apice albis.

Body black: head hoary in front and beneath: eyes red; facets in front larger than those elsewhere: mouth dark tawny: feelers black, adorned with a hoary covering: *chest clothed with golden hairs: breast hoary: abdomen of the male* brownish-black, linear, much narrower and longer than the chest, *adorned with bands of silvery hairs:* abdomen of the female twice the length of the chest, obconical for full half the length from the base, tapering and like a tail from thence to the tip: *legs tawny*, long and slender; hips hoary; thighs darker than the shanks: *wings brown*, beautifully iridescent, *adorned with seven or eight colourless spots*, which are chiefly open to the border; tips brilliant white; wing-ribs and veins black; poisers black, very long, tawny towards the base. Length of the body $2\frac{1}{2}$ lines; of the wings 5 lines.

Columbia.

SYNECHES, n. g.

Antennis articuli breves; 3us 2o multo latior vix longior; seta capite vix brevior articulis 1o ad 3um triplo longior: alæ costa incisa; areolæ undecim, duo marginales, una submarginalis, una apicalis, duo posteriores, una inferior, tres basales, una discoidalis.

Joints of the feelers short; third joint nearly round, much broader but hardly longer than the second joint; bristle very slender, about thrice the length of all the preceding joints, nearly as long as the head: chest gibbous: fore border of the wing slightly notched towards the brand: two marginal areolets, one submarginal, one apical, two posterior, one inferior, three basal, and one discoidal.

Synecues simplex, Mas, Plate 5, fig. 7.

Fusca, thorace vittis indistinctis fulvis ornato, abdomine nigro, antennis pedibusque fulvis, alis cinereis fusco flavoque variis.

Body dark brown, clothed with black hairs: eyes red, meeting above; facets large: mouth and feelers tawny; bristle of the feeler black: chest adorned with tawny stripes which are nearly confluent: abdomen linear, rather flat, black, longer and much narrower than the chest; tip dark tawny, shining: legs tawny; thighs and fore-shanks partly pitchy: wings pale gray, brownish on the borders of the cross-veins and beneath the brand, which is dark brown; the wing is yellow on each side of the latter, and there is a dark brown spot beyond it; wing-ribs and veins brown; poisers large, tawny. Length of the body 1½ line; of the wings 3 lines.

United States.

Fam. BOMBYLIARII, *Meigen.*

Genus ANTHRAX, *Fabr.*

Is here divided into the following groups, of which several lesser sections may be formed.

Group 1. Exoprosopa, *Macquart.*

Four submarginal areolets. Feelers like fig. 4, Pl. 17, *Meig.*

Ex.—A. stymphalis, Phlegethon, Harpia, umbrifer, Orcus, Erebus, Cerberus, Proserpina, rufescens, erythrocephala, dives, ferrea, Tantalus, funesta, Sphinx, Lucifer, purpuraria, pulchra.

Group 2. Ligyra, *Newman.*

Four submarginal areolets: tip-veins contorted: feelers like fig. 4, Pl. 17.

Ex.—A. bombyliformis, sylvanus.

Group 3. Litorhynchus, *Macq.*

Three submarginal areolets: feelers like fig. 4, Pl. 17.

Ex.—A. Mara, heros, Satyrus, ignifer, insulata, Lar, seniculus, Dux, stellifer, collaris, caffra, Meigenii, rufa, capensis, Hessii, maculipennis, umbra, marginicollis, undans, Alexon, Pygmalion, basifascia, hetrusca, lutea, pictipennis, diffusa, Iacchus, capucina, subfascia, emarginata, fasciata, indecisa, singularis, muscaria, Nox, vitreicosta = stupida *Rossi*? suffusa, fenestrata (fig. 24), argentifera, onusta, albida (fig. 12), auriplena, insulata (fig. 23), Californiæ, semilucida.

Group 4.

Three submarginal areolets: feelers like fig. 4, Pl. 17: hind legs fringed with hairs.

Ex.—A. apicalis, pennipes.

Group 5.

Two submarginal areolets; indications of a third: feelers like fig. 4, Pl. 17.

Ex.—A. bipunctata, carbonaria, ignifera.

Group 6.

Two submarginal areolets: feelers like fig. 4, Pl. 17.

Ex.—A. trimacula, dimidiata, fulvohirta, leucostoma, semialba, recta (fig. 19), restituta (fig. 19).

Group 7.

Two submarginal areolets: feelers like fig. 4, Pl. 17: abdomen deeply fringed.

Ex.—A. leucotelus, latifimbria.

Group 8. Neuria, *Newman.* Comptosia, *Macq.*

Wings long and narrow; three submarginal areolets; tip-veins very much contorted: feelers like fig. 4, Pl. 17.

Ex.—A. lateralis (*Newm.*), fasciata, stria, basalis, quadripennis, ocellata, præargentata, inclusa, sobria, extensa, coreulum, dorsalis, subinteger, plena, decedens, ducens, obscura, partita, Atherix, geometrica, cognata.

Group 9.

Two submarginal areolets; tip-veins contorted: feelers like fig. 4, Pl. 17.

Ex.—A. Pegasus.

Group 10.

Two submarginal areolets: feelers like fig. 1, Pl. 17.

Ex.—A. fimbriata, maura, vestita, fulviana, alternata, resurgens, nigriceps, hottentotta, modesta, lasia, Troglodyta, 6-fasciata, Bastardi, lateralis, fervida, submacula, subannulus, tegminipennis, pictipennis? antica, separata, manifesta, clara, marginata, lucida, limpida, aperta, lucens, apparens, detecta, vitrea, pellucida, albofulva, translata, instituta (fig. 22), reducta (fig. 19).

Group 11.

Two submarginal areolets: feelers like fig. 1, Pl. 17: epistoma prominent.

Ex.—A. Halcyon, Demogorgon, fumiflamma (most like fig. 15).

Group 12.

Two submarginal areolets: wing-veins somewhat like fig. 22, *Meig.*, but the tip-veins are more contorted, and indicate an affinity to Neuria; the first posterior areolet is rather broader; the inner vein of the third forms two angles in its course, each of which is furnished with a stump; the fore side vein of this areolet is more curved than that in fig. 22: feelers like fig. 1, but the tip-bristle is twice as long.

Ex.—A. ampla.

Group 13.

Two submarginal areolets; tip wing-veins much contorted: feelers like fig. 1, Pl. 17.

Ex.—A. tendens, plana, patula.

Group 14.

Wings long; two submarginal areolets; tip cross-vein sending back a long stump from its angle: feelers like fig. 1, Pl. 17.

Ex.—A. melaleuca, hyalacra, Cephus.

Group 15.

Wings long; two submarginal areolets; tip cross-vein sending back a long stump from its angle: feelers like fig. 3, Pl. 17.

Ex.—A. delicatula, noctiluna.

Group 16.

Two submarginal areolets: feelers like fig. 3, Pl. 17.

Ex.—A. incompta, semimacula, bimacula, morio, Germari, varia, semiatra, congrua, albofasciata, morioides, fascipennis, analis, punctata, Gideon, primitiva, velutina, sinuosa, purpurata, procedens, incisa, referens, gnata? excisa, reperta, constituta? cedens (fig. 15), divisa? (fig. 18), relata (fig. 18), illata (fig. 18), Hesperus, cognata.

Group 17.

Two submarginal areolets; indications of two more: feelers like fig. 3, Pl. 17.

Ex.—A. Simson, conspurcata, Pithecius, Terminus, Diana, Punctum, Œdipus, æqua.

Group 18.

Two submarginal areolets; a stump indicating the third: feelers like fig. 3, Pl. 17.

Ex.—A. distigma (fig. 25), punctipennis, albofasciata, succedens, Australis, antecedens? (fig. 22).

ANTHRAX PURPURARIA, Fem.

Nigra, capite fulvo, scutello ferruginco, thorace fulvo-hirto, abdomine pilis albis ornato, antennis piceis basi fulvis, pedibus nigris, alis purpureo-fuscis.

Black: clothed with short black hairs: head dark tawny: feelers pitchy; first and second joints tawny: sides and front of the chest adorned with a thick fringe of bright tawny hairs; a tuft of yellowish white hairs beneath the base of each wing: scutcheon ferruginous: *abdomen* obconical, a little shorter than the chest, *adorned on each side at the base with a tuft of ferruginous hairs, on the middle of each side with a tuft of white hairs, and with white hairs at the tip;* underside adorned with a stripe of white hairs: *wings dark brown*, darkest at the base, *adorned with purple lustre;* four submarginal areolets, the third being subdivided by a straight or slightly curved oblique vein; four posterior areolets, the first narrow, the other three broad and successively increasing in breadth; scales dark brown, deeply fringed; poisers pitchy. Length of the body 7½ lines; of the wings 20 lines.

Java.

ANTHRAX PULCHRA, Fem.

Nigra, fulvo-hirta, abdominis lateribus aureo et ad apicem argenteo-hirtis, antennis pedibusque nigris, alis nigro-fuscis apice dimidioque postico cinereis.

Black, clothed with tawny hairs: sucker and feelers black: chest and breast clothed with bright tawny hairs: abdomen slightly obconical, a little narrower but not longer than the chest; a tuft of tawny hairs on each side at the base; *each side adorned with a very broad stripe of golden hairs which are succeeded on the two last segments by silvery hairs;* disk of the underside clothed with silvery hairs and surrounded by black hairs: legs clothed by short black hairs and bristles: *wings gray, dark brown at the base and beneath the fore border for half the breadth till near the tips.* Length of the body 7½ lines; of the wings 17 lines.

Anthrax onusta, Fem.

Nigra, capite antico scutello abdominis basi maculis ventreque ferrugineis, abdomine vittis quatuor interruptis albo-pilosis ornato, antennis ferrugineis, pedibus nigris, alis fuscis, apice subcinereis macula magna fulva guttis subcinereis fulvisque fasciaque limpida ornatis.

Black: head ferruginous and shining in front, gray behind: feelers ferruginous; first joint stout, clothed with short black hairs; second very short; third tapering from the base to the tip, a little longer and much narrower than the first; fourth linear, very slender, about half the length of the third joint: chest clothed with tawny hairs; sides and breast clothed with white hairs; a patch of ferruginous hairs on each side above the base of the wings; scutcheon ferruginous: abdomen oval, a little broader but hardly longer than the chest, clothed with short black hairs, adorned with a large ferruginous spot on each side of the base and with four more or less interrupted bands of white hairs; underside ferruginous for more than half the length from the base: legs clothed with short black hairs: *wings dark brown; a large irregular tawny spot near the base, beyond this are a few pale gray and tawny dots; these are succeeded by a slightly oblique colourless band widening towards the fore border which it does not attain; tips pale gray;* wing-ribs and veins black, the latter tawny in the pale parts of the wing towards the base; poisers pitchy with yellow knobs. Length of the body 8½ lines; of the wings 22 lines.

Nicopolis?

Anthrax semilucida, Fem.

Nigra, scutello ferrugineo, abdomine fasciis flavo-pilosis ornato, antennis nigris basi ferrugineis, pedibus nigris, alis subcinereis basi et ad costam fulvis.

Black: head gray above, hoary beneath, clothed in front and beneath with tawny hairs: feelers black, dark ferruginous at the base; first joint short, hardly twice the length of the second; third slightly tapering from the base to the tip, about thrice the length of the first; fourth slender, linear, not more than one-fourth of the length of the third: chest and breast clothed with tawny hairs; scutcheon dark ferruginous: abdomen slightly obconical, a little broader but not longer than the chest; each segment

adorned with a band of pale yellow hairs; the hairs beneath are hoary and occupy a large part of each segment: *wings pale gray, tawny at the base and along the fore border for full three-fourths of the length;* wing-ribs tawny; veins black, tawny towards the base and along part of the fore border; poisers tawny with paler knobs. Length of the body 8 lines; of the wings 18 lines.

East Indies.

Anthrax albida, Fem.

Nigra, flavo-hirta, scutello abdomineque ferrugineis, pectore ventreque albohirtis, antennis nigris basi fulvis, pedibus fulvis, tibiis posticis tarsisque nigris, alis albidis basi costaque flavis fascia obliqua cinerea ornatis.

Black, thickly clothed with pale yellow hairs: head clothed above with yellow hairs: peristoma whitish-yellow; epistoma prominent: first joint of the feelers pale tawny: breast and underside of abdomen clothed with white hairs; scutcheon ferruginous: abdomen mostly ferruginous, slightly obconical, not longer than the chest, clothed with whitish yellow hairs: legs tawny, armed with black spines, clothed with pale yellow hairs; feet and hind-shanks black: *wings whitish, yellow at the base and along the fore border; disks of the areolets very pale gray; an irregular very oblique gray band extending from three-fourths of the fore border to one-sixth of the hind border, on approaching which it becomes very indistinct;* wing-ribs tawny; veins black, tawny towards the base and along the fore border; poisers pale yellow. Length of the body 6 lines; of the wings 16 lines.

East Indies.

Anthrax auriplena, Fem.

Nigra, fulvo-hirta, scutello abdominisque segmentorum marginibus posticis ferrugineis, pectore cinereo, abdomine fasciis flavo-pilosis ornato, antennis pedibusque nigris, tibiis basi fulvis, alis subcinereis cinereo octo-maculatis, basi costa nervorumque marginibus fulvis.

Black, clothed with tawny hairs: head adorned with a tawny covering, clothed with short black and tawny hairs; peristoma yellow; mouth and epistoma prominent: breast hoary, clothed with pale hairs; scutcheon ferruginous: abdomen nearly elliptical, a little longer than the chest; fore

borders of the segments adorned with bands of yellow hairs; hind borders slightly ferruginous above, distinctly so beneath, which is clothed with hoary hairs: legs clothed with short black hairs, armed with black spines; shanks dark tawny towards the base: *wings gray, bright tawny at the base beneath the fore border and along the borders of most of the veins, adorned with eight gray spots which are mostly on the cross-veins; there are also two paler and indistinct gray spots towards the base;* wing-ribs and veins ferruginous, some of the latter black; poisers tawny with yellow knobs. Length of the body 4½ lines; of the wings 10 lines.

East Indies.

Anthrax insulata, Fem.

Nigra, fulvo-hirta, abdominis lateribus albo nigroque fasciculatis, ventre nigro hirto, antennis pedibusque nigris, alis nigro-fuscis apice subcinereis fuscoque sex maculatis.

Black, clothed with pale tawny hairs: head clothed above with short black hairs, beneath with whitish hairs: abdomen nearly linear, rounded at the tip, a little broader but not longer than the chest; sides adorned with tufts of alternate black and pale tawny hairs; underside clothed with black hairs: legs clothed with short black hairs, armed with black spines: *wings dark brown with blackish spots from three-fourths of the fore border to one-third of the hind border, pale gray from thence to the tips and adorned with six brown spots; three small and round, three large and irregular, and one of them connected with the brown part;* wing-ribs and veins black; scales pitchy with tawny knobs. Length of the body 4½ lines: of the wings 12 lines.

East Indies.

Anthrax Californiæ, Fem.

Ferruginea, thoracis disco nigro, abdomine maculis albo-hirtis ornato, antennis pedibusque ferrugineis, alis limpidis ferrugineo-fusco trifasciatis, fasciis guttatis ad costam confluentibus.

Dark ferruginous, clothed with short black hairs; head red, clothed with ferruginous hairs and with a few black hairs, black about the eyelets; epistoma prominent: feelers ferruginous, beset at the base with black bristles, black towards the tips: chest and breast clothed with ferruginous

hairs: disk of the chest mostly black: abdomen obconical, a little broader but hardly shorter than the chest, paler beneath, adorned above with silvery white hairs which form a very large triangular spot on each side of the base, a small spot on each side of the middle, and a row of small tufts along the back: legs ferruginous, armed with black spines: *wings colourless, adorned with three dark brown bands which are partly ferruginous; these are united on the fore border, and contain some colourless dots and on the hind border some colourless angles;* shoulders adorned with silvery white hairs; wing-ribs and veins black, the latter ferruginous along the fore border and in the brown parts of the wing; poisers black with white tips. Length of the body 5 lines; of the wings 12 lines.

California.

ANTHRAX CARBONARIA, Fem.

Nigra, nigro-hirta, capite subtus cano, pedibus nigris tibiis posticis longis validis subarcuatis, alis fuscis basi et ad costam obscurioribus.

Elliptical, black, rather broad, clothed with short black hairs: head hoary beneath, clothed in front with hoary hairs: abdomen obconical, a little shorter and broader than the chest: hind-shanks rather long and stout, slightly curved: *wings brown, dark at the base and along the fore border;* a stump on the angle of the hinder vein of the second marginal areolet; wing-ribs, veins, and poisers black. Length of the body 8 lines: of the wings 20 lines.

East India.

ANTHRAX IGNIFERA, Mas.

Nigra, nigro-hirta, capite antico cinereo, abdomine albo-hirto segmentorum marginibus posticis subferrugineis, antennis pedibusque piceis, alis subcinereis basi et ad costam fulvis.

Black, elliptical, rather broad, thickly clothed with very short black hairs: front of the head tinged with gray: mouth and feelers pitchy: abdomen obconical, a little shorter and broader than the chest: hind borders of the segments slightly ferruginous, clothed towards the tip with some white hairs: legs pitchy, clothed with very short black hairs: *wings very slightly tinged with gray, bright tawny at the base and along the fore border;*

wing-ribs and veins tawny: poisers black. Length of the body 8 lines; of the wings 21 lines.

———?

Anthrax recta.

Nigra, fulvo-hirta, antennis nigris basi ferrugineis, pedibus nigris viridi aureoque micantibus, alis fuscis ad apices oblique limpidis.

Black, clothed with bright deep tawny hairs: crown and sides of the peristoma beset with short black bristles; epistoma very prominent: first joint of the feelers dark ferruginous; second pitchy; first and second beset with short black bristles: abdomen obconical, very little shorter and broader than the chest: legs black, clothed with very short black hairs and bristles, adorned with green and golden lustre: *wings colourless, dark brown on more than half the surface from the base; the outline of this brown is nearly straight, very oblique, and extends from three-fourths of the length of the fore border to one-fourth of the length of the hind border;* wing-ribs and veins black; poisers tawny. Length of the body 5½ lines; of the wings 14 lines.

South America.

Anthrax restituta.

Nigra, fulvo-hirta, abdominis vittis fasciisque fulvo-pilosis, antennis nigris basi ferrugineis, pedibus nigris aureo-micantibus, alis fuscis ad apices oblique limpidis.

Black, clothed with short bright deep tawny hairs: crown and sides of the peristoma beset with short black bristles; epistoma very prominent: first and second joints of the feelers dark ferruginous, clothed with short black bristles: abdomen obconical, very little shorter and broader than the chest, clothed with bright short tawny hairs, which form a broad stripe on each side and extend in narrow bands along the hind borders of the segments: legs adorned with golden lustre, clothed with very short black hairs and bristles: *wings colourless, dark brown on more than half the surface from the base; the outline of this brown is nearly straight, very oblique, and extends from beyond two-thirds of the length of the fore border to one-third of the length of the hind border;* wing-ribs and veins black; poisers

tawny, partly pitchy above. Length of the body 3½—4 lines; of the wings 10—11 lines.

South America.

Var. ? or a distinct species. Smaller: stripe of hairs on each side of the abdomen shorter: legs pitchy. Length of the body 2¾ lines; of the wings 7 lines.

Columbia.

Anthrax leucotelus, Fem.

Atra, nigro-hirta, capite antico abdominisque apice albo-pilosis, antennis pedibusque nigris, alis limpidis basi fuscis.

Black, thickly clothed with black hairs: front of the head adorned with short silvery hairs: sucker as long as the head: chest and abdomen partly clothed with dark tawny hairs: abdomen a little longer than the chest, deeply fringed with tufts of black hairs; tip adorned with snow-white hairs: legs beset with short black bristles: *wings colourless, dark brown for near half the length from the base, the brown extends further along the fore border than along the hind border and its outline is rather concave;* wing-ribs and veins black. Length of the body 4 lines; of the wings 10 lines.

——— ?

Anthrax latifimbria.

Nigra, nigro-hirta, abdominis lateribus nigro fasciculatis, pedibus nigris, alis limpidis, dimidio antico longitudinis bistriente nigro fuscis.

Head wanting: black, clothed with black hairs: abdomen longer and broader than the chest; its sides deeply fringed with tufts of long black hairs: legs clothed with short black hairs: *wings colourless, very dark brown for two-thirds of the length from the base and for rather less than half the breadth beneath the fore border;* wing-ribs and veins black. Length of the body 6 lines; of the wings 16 lines.

Columbia.

Anthrax ducens, Fem.

Nigro-cinerea, capite fulvo, thoracis lateribus scutello pectoreque rufis, abdomine rufo vitta lata nigra ornato, antennis piceis basi rufis, pedibus rufis, alis ferrugineo-cinereis, basi fuscis ad costam rufis.

Grayish black: head tawny with a hoary covering, thinly clothed above with black hairs, thickly clothed in front with tawny hairs: sucker ferruginous, pitchy towards the tip: first and second joints of the feelers pale red, clothed with black hairs; third pitchy: breast, sides of the chest and scutcheon red, the former with a hoary tinge: abdomen red, obconical, a little longer and broader than the chest; a broad black stripe on the back, tapering like the chest from the base towards the tip which it does not attain, its sides are angular or project along the borders of the segments: legs pale red: *wings gray, dark ferruginous when viewed horizontally, dark brown at the base, reddish along the fore border;* wing-ribs and veins dark red, some of the latter pitchy; poisers tawny with pitchy knobs. Length of the body 10 lines; of the wings 26 lines.

New South Wales.

Anthrax obscura, *Saunders MSS.*, Fem.

Nigra, nigro-hirta, thoracis lateribus albo-pilosis, abdominis maculis lateralibus ventreque rufis, antennis nigris, pedibus rufis, alis cinereis ad costam fuscis disco albidis fuscoque quadrimaculatis.

Black, thinly clothed with black hairs and bristles: chest adorned on each side with a fringe of whitish hairs: abdomen elliptical, longer than the chest, clothed on each side with whitish hairs; hind borders of the segments on each side above and underside dull red: legs pale red, beset with black bristles; feet darker: *wings pale gray, dark brown along the fore border from the base to the tip; the outline of the brown is irregular, and includes a colourless spot near the tip, it does not occupy half the breadth of the wing and is divided from the gray part by a white irregular streak; the latter contains four brown spots which occupy the cross-veins, the spot nearest the base is in connexion with the brown of the fore border;* wing-ribs ferruginous; veins black, ferruginous at the base. Length of the body $4\frac{1}{2}$ lines; of the wings 12 lines.

Van Diemen's Land.

ANTHRAX COGNATA, Mas.

Nigra, thoracis abdominisque basi lateribus fulvo-pilosis, antennis nigris, pedibus piceis, tibiis ferrugineis, alis fuscis cinereo-variis limpido quinque-maculatis.

Black: head beset with black bristles, clothed in front with tawny hairs: sides of the chest clothed with pale tawny hairs; front beset with a fringe of black bristles: abdomen as long as the chest, hardly decreasing in breadth from the base to the tip, clothed on each side of the base with pale tawny hairs: legs pitchy, beset with short black bristles; shanks ferruginous: *wings dark brown, gray on the disks of the areolets and on the whole of the hind border excepting the borders of the veins; three colourless spots form a line on the disk and there are two more at the tip;* wing-ribs and veins black; poisers pitchy with tawny tips. Length of the body 4 lines; of the wings 12 lines.

West Australia.

ANTHRAX SEPARATA.

Nigra, ferrugineo-hirta, antennis nigris basi ferrugineis, pedibus fulvis, tarsis piceis, alis fuscis ad apices oblique limpidis.

Black, clothed with bright deep ferruginous hairs: sides of the peristoma ferruginous; epistoma very prominent: first and second joints of the feelers ferruginous, beset with short black bristles: breast clothed with paler hairs: abdomen obconical, a little shorter than the chest: legs tawny, beset with short black bristles; feet pitchy: *wings colourless, dark brown on more than half the surface from the base; the outline of the brown is oblique, nearly straight, and extends from beyond two-thirds of the fore border to much beyond one-third of the hind border;* wing-ribs and veins black; poisers pale tawny. Length of the body 4 lines; of the wings 10 lines.

Bolton, North America.

ANTHRAX MARGINATA, *Saunders MSS.*, Mas et Fem.

Nigra, fulvo-hirta, abdominis apice nigro-piloso, antennis femoribusque nigris, tibiis fulvis, tarsis piceis, alis limpidis basi et ad costam fuscis.

Black, thickly clothed with pale tawny hairs: crown of the head clothed with black hairs: abdomen nearly linear, shorter than the chest, thinly clothed with black hairs towards the tip which is truncated: legs clothed with short black hairs; thighs black with a tawny tinge; shanks dark tawny; feet pitchy: *wings colourless, brown at the base; fore border adorned with a broad brown stripe which diminishes in breadth till a little beyond three-fourths of the length, where it ceases;* wing-ribs pitchy; veins black, pitchy at the base; scales tawny with darker borders; poisers yellow. In one wing of a specimen described there is an additional areolet formed by a supernumerary little cross-vein in the disk of the wing. Length of the body 6 lines; of the wings 16 lines.

Van Diemen's Land.

ANTHRAX MANIFESTA, Fem.

Nigra, fulvo-hirta, abdominis apice nigro-piloso, palpis nigris apice fulvis, antennis pedibusque nigris, alis limpidis basi et ad costam fuscis.

Black, thickly clothed with tawny hairs which are paler on each side towards the tip of the abdomen and beneath: peristoma tawny: palpi with tawny tips: abdomen linear, truncated at the tip, a little longer than the chest, adorned on each side of the tip with a tuft of black hairs: legs clothed with short black hairs: *wings colourless, dark brown at the base and along the fore border till near the tip;* wing-ribs pitchy; veins black, pitchy at the base and along the fore border; scales tawny with darker borders; poisers yellow. Length of the body 7 lines; of the wings 16 lines.

East India.

ANTHRAX CLARA, Fem.

Nigra, fulvo-hirta, antennis pedibusque nigris, alis limpidis basi et ad costam fuscis.

Black, thickly clothed with bright tawny hairs: head clothed above with black hairs: abdomen obconical, a little shorter and broader than the chest: legs clothed with short black hairs: *wings colourless, dark brown along the fore border till near the tip;* wing-ribs and veins black; poisers tawny. Length of the body 6 lines; of the wings 12 lines.

East India.

ANTHRAX LUCIDA, Fem.

Nigra, fulvo-hirta, abdominis apice nigro-piloso fasciculisque flavo-albis ornato, antennis pedibusque nigris, alis limpidis ad costam fuscis.

Black, thickly clothed with bright tawny hairs: head clothed above with black hairs: abdomen nearly linear, truncated at the tip, hardly shorter than the chest; tip clothed with black hairs and adorned on each side with a tuft of yellowish-white hairs: *wings colourless, brown along the fore border for two-thirds of the length;* wing-ribs and veins black, the latter pitchy beneath the fore border; poisers yellow. The brown on the wing of this species is much narrower than that of *A. manifesta*. Length of the body 6 lines; of the wings 14 lines.

East India.

ANTHRAX LIMPIDA, Fem.

Nigra, fulvo-hirta, antennis pedibusque nigris, alis limpidis costa fuscis.

Black: head clothed above with short tawny and longer black hairs, beneath with longer tawny hairs: chest clothed with bright tawny hairs: abdomen slightly obconical, somewhat truncated at the tip, shorter than the chest, clothed with pale tawny hairs: legs clothed with short black hairs: *wings colourless, with a very narrow brown stripe along the fore border for more than two-thirds of the length;* wing-ribs pitchy; veins black, pitchy at the base and along the fore border; poisers pale yellow. Length of the body 5 lines; of the wings 12 lines.

East India.

Anthrax aperta, Fem.

Nigra, fulvo-hirta, pectore albo-piloso, abdomine maculis quatuor fasciisque duabus albo-pilosis ornato lateribus nigro-pilosis, alis limpidis basi costaque fuscis.

Black: head wanting: chest clothed with tawny hairs which are brighest in front: breast clothed with white hairs: abdomen slightly obconical, somewhat truncated, a little longer than the chest, clothed with black hairs along each side, adorned with four spots and two bands of white hairs; a large spot on each side of the base and a little one on each side of the tip, one band near the base, the other beyond the middle: legs clothed with short black hairs: *wings colourless, dark brown at the base, whence a very narrow brown stripe proceeds near the fore border for three-fourths of the length;* a patch of white hairs on each shoulder; wing-ribs and veins black. Length of the body 5 lines; of the wings 12 lines.

East India.

Anthrax lucens, Fem.

Nigra, fulvo-pilosa, abdominis lateribus albo nigroque fasciculatis, alis limpidis basi fuscis.

Black: head tawny beneath: chest and breast clothed with tawny hairs; a tuft of white hairs on each side above the base of the wing: abdomen obconical, a little shorter than the chest, clothed on each side with alternate patches of black and white hairs: legs clothed with very short black hairs: *wings colourless, dark brown at the base, adorned on each shoulder with a patch of silvery white hairs;* wing-ribs and veins black. Length of the body $4\frac{1}{2}$ lines; of the wings 12 lines.

East India.

Anthrax apparens, Fem.

Nigra, fulvo-hirta, abdominis lateribus basi ferrugineis albo fasciculatis, ventre ferruginea disco piceo albo-hirto, antennis nigris, pedibus fulvis, tarsis piceis, alis limpidis basi et ad costam fulvis.

Black: head clothed in front and beneath with tawny hairs: chest and abdomen clothed with tawny hairs: abdomen obconical, a little shorter

than the chest, ferruginous and adorned with a patch of white hairs on each side of the base; underside ferruginous except the middle part which is pitchy and adorned with white hairs: legs tawny, clothed with very short black bristles; feet pitchy; claws black, tawny at the base: *wings colourless, tawny at the base and along half the length of the fore border; shoulders beset with black bristles;* wing-ribs tawny; veins pitchy, tawny at the base and along the fore border; scales tawny; poisers yellow. Length of the body 5 lines; of the wings 11 lines.

Cape.

Anthrax detecta, Fem.

Nigra, angusta, flavo-hirta, thoracis lateribus albo nigroque fasciculatis, antennis pedibusque nigris, femoribus posterioribus basi fulvis, alis limpidis basi et costæ triente fulvis.

Black, narrow: head clothed with silvery white hairs: chest and breast clothed with yellow hairs: abdomen linear, conical at the tip, a little longer than the chest, clothed with yellow hairs, adorned on each side with alternate tufts of black and white hairs: legs clothed with short black hairs and bristles: four hinder thighs tawny towards the base: *wings colourless, tawny at the base and along one-third of the fore border;* shoulders adorned with pale yellow hairs; wing-ribs pitchy; veins black, pitchy at the base and along the fore border; scales tawny; poisers yellow. Length of the body 4 lines; of the wings 9 lines.

South America.

Anthrax vitrea, Fem.

Nigra, angusta, fulvo-hirta, antennis pedibusque nigris, tibiis piceis, alis limpidis basi fulvis.

Black, narrow, clothed with tawny hairs: sucker pitchy: abdomen ob-conical, a little shorter than the chest: shanks pitchy: *wings colourless with a slight tawny tinge at the base;* wing-ribs pitchy: veins black, pitchy at the base and along the fore border; poisers pitchy with yellow knobs. Length of the body $2\frac{3}{4}$ lines; of the wings 6 lines.

West Australia.

Anthrax pellucida, Fem.

Nigra, angusta, flavo-hirta, abdominis lateribus albo nigroque fasciculatis, antennis pedibusque nigris, alis limpidis longis angustis basi et ad costam fuscis.

Black, narrow, linear: head clothed with black or pale yellow hairs, the former chiefly above, the latter in front: chest, breast and abdomen clothed with pale yellow hairs: abdomen hardly longer than the chest, very slightly decreasing in breadth from the base to the tip which is truncated; side adorned with alternate tufts of black and white hairs: legs clothed with very short black hairs; claws ferruginous with black tips: *wings colourless, long and narrow, dark brown at the base and along three-fourths of the length of the fore border;* wing-ribs and veins black; scales pale tawny; poisers tawny. Length of the body $3\frac{1}{2}$—4 lines; of the wings 10—11 lines.

Van Diemen's Land.

Anthrax translata, Fem.

Nigra, fulvo-hirta, pedibus nigris, alis subcinereis basi et ad costam fuscis.

Head wanting. Black, rather broad, thickly clothed with tawny hairs: abdomen obconical, rather longer and broader than the chest: legs clothed with short black hairs: *wings slightly tinged with gray, dark brown at the base and along three-fourths of the fore border;* wing-ribs pitchy; veins black, partly pitchy, clouded with pale brown. Length of the body 5 lines; of the wings 12 lines.

West Indies.

Anthrax albo-fulva, Mas.

Nigro-cinerea, pectore ventreque canis, abdominis segmentorum marginibus posticis fulvis, antennis basi pedibusque fulvis, alis limpidis.

Black, tinged with gray, clothed with short tawny hairs: head covered with a tawny hue, clothed with short whitish hairs: first and second joints of the feelers tawny: breast and underside of the abdomen hoary, clothed

with white hairs; hind borders of the abdominal segments tawny: legs pale tawny: *wings colourless;* wing-ribs pale tawny; veins pitchy, tawny at the base and along the fore border; poisers yellow with white knobs. Length of the body 3 lines; of the wings 6½ lines.

East India.

Anthrax antica, Fem.

Nigra, fulvo-hirta, capite fulvo, scutello thoracis abdominisque lateribus ventreque ferrugineis, antennis piceis basi fulvis, pedibus nigris, alis limpidis basi et ad costam oblique et angulatim fuscis.

Black: head mostly tawny, beset with short black bristles: epistoma prominent: feelers pitchy, dark tawny at the base: sucker pitchy: chest and breast clothed with tawny hairs: scutcheon and sides of the chest ferruginous: abdomen slightly obconical, a little broader but not longer than the chest; a large ferruginous spot on each side of the second, third and fourth segments; underside dark ferruginous: legs clothed with short black hairs and bristles; thighs and shanks adorned with a dark tawny tinge: *wings colourless, dark brown at the base and along the fore border for more than three-fourths of the length; this brown part contains two tawny dots and has a slight ferruginous tinge, it is darkest along the outline which has three inward and as many outward irregular curves, is very oblique, and terminates on the hind border near the end of the inferior part;* wing-ribs pitchy; veins black, pitchy at the base and along the fore border; poisers tawny. Length of the body 4 lines; of the wings 10 lines.

Columbia.

Anthrax instituta, Fem.

Nigra, angusta, flavo-pilosa, pectore cano, abdomine cinereo, antennis pedibusque nigris, alis cinereis fusco quadrimaculatis.

Black, narrow: head clothed above with brown hairs, in front with tawny hairs: chest beset with black bristles: breast hoary, clothed with whitish hairs: abdomen gray, obconical, a little shorter than the chest, beset with a few black bristles, clothed on each side and at the base with dull pale yellow hairs: legs black, clothed with short black hairs and bristles; shanks pitchy; thighs tinged with gray: *wings gray, rather long and*

narrow, adorned with four brown spots which cloud the cross-veins; wing-ribs pitchy; veins black, pitchy at the base and along the fore border; poisers pitchy with tawny knobs. Length of the body $3\frac{1}{2}$—$4\frac{1}{2}$ lines; of the wings 10—12 lines.

East India.

Anthrax reducta, Mas.

Atra, capite antice abdominisque apice pilis ornatcis argentis, thorace pilis fuscis hirto, antennis nigris, pedibus piceis, tibiis fulvis, alis limpidis basi fuscis bimaculatis.

Deep velvet-like black: front of the head thickly clothed with silvery white hairs; a few black bristles on the region of the eyelets: chest thickly clothed with brown hairs: abdomen nearly elliptical, a little longer than the chest, adorned at the tip with a tuft of silvery white hairs: legs pitchy, beset with short black bristles; shanks dark tawny: *wings colourless, brown from near three-fifths of the fore border to near two-fifths of the hind border: the outline of the brown is irregularly concave, and it includes two small colourless spots;* wing-ribs and veins black; poisers pitchy. Length of the body $2\frac{1}{2}$ lines; of the wings 7 lines.

Anthrax fumiflamma, Fem.

Nigra, fulvo-hirta, abdomine fasciis fulvo-pilosis ornato, antennis pedibusque nigris, alis nigro-cinereis basi costa nervorumque marginibus fulvis.

Black, clothed with tawny hairs which are disposed in broad bands on the fore borders of the abdominal segments: head bright tawny, thickly clothed with bright tawny hairs, among which a few black bristles are mingled; underside and hind part yellowish, clothed with pale tawny hairs: epistoma prominent: breast clothed with pale yellow hairs: abdomen slightly obconical, a little longer than the chest: legs covered with yellow down, armed with black spines; feet clothed with short black hairs: *wings very dark gray, slightly tawny at the base and beneath the fore border and along some of the veins in the disk;* wing-ribs and veins black, some of the latter ferruginous; poisers tawny with whitish knobs. Length of the body $4\frac{1}{2}$—5 lines; of the wings 13—14 lines.

Jamaica.

ANTHRAX AMPLA, Fem.

Cinerea, capite scutelloque fulvis, pectore cano, abdomine fusco basi ferrugineo flavo-hirto, segmentorum marginibus posticis albo-hirtis, ventre ferrugineo, antennis nigris basi fulvis, pedibus fulvis, tibiis posticis tarsisque piceis, tarsis posticis nigris, alis subcinereis basi et ad costam fulvis.

Head dark tawny, thickly clothed with white hairs, thinly clothed with black hairs about the eyelets and behind where it is gray: sucker and lancets black, the former much longer than the head, the latter long and slender with tawny tips: feelers black; first and second joints tawny adorned with a whitish covering, beset with black bristles; third conical, terminated by a bristle which is near twice the length of all the preceding part, it tapers in the early part of its course, is thence linear, and widens towards the tip where it terminates in a little spine: *chest gray*, clothed with hoary hairs, adorned on each side and in front with ferruginous hairs; *scutcheon tawny;* a few red bristles on each side of the scutcheon: breast hoary, clothed with whitish hairs: *abdomen brown*, shorter than the chest, not longer than broad, thinly clothed with black hairs; *hind borders of the segments adorned with bands of whitish hairs; base ferruginous, covered with a thick band of pale yellow hairs which form a tuft on each side; underside ferruginous*, clothed with pale down: *legs dark tawny*, adorned with a hoary tinge, beset with black bristles; *feet and hind shanks pitchy; hind feet black: wings pale gray, tawny at the base and along the fore border; cross-veins clouded with dark gray;* wing-ribs and veins tawny; poisers pitchy with tawny knobs. Length of the body 8 lines; of the wings 22 lines.

West Australia.

ANTHRAX PROCEDENS, Fem.

Nigra, angusta, fulvo-hirta, thoracis lateribus posticis ferrugineis, pectore cano, abdominis lateribus albo nigroque fasciculatis, antennis nigris, pedibus fulvis, tarsis piceis, alis limpidis longis angustis basi et ad costam sinuato-fuscis.

The stump on the hinder vein of the second marginal areolet is more than twice the length of the inner side of that angle; stump on the angle of the tip cross-vein rudimentary or none. Black, rather narrow: head

clothed in front with whitish hairs: peristoma tawny: chest clothed with pale tawny hairs, slightly ferruginous on each side behind the wings: breast hoary: abdomen clothed with pale tawny hairs, increasing in breadth from the base to the tip which is truncated, a little shorter and broader than the chest, adorned on each side with alternate patches of black and white hairs: legs tawny, rather long and slender, beset with short black bristles which are mostly on the shanks; feet pitchy with black tips: *wings colourless, long and narrow, dark brown mingled with dark tawny at the base and along four-fifths of the length of the fore border; this dark part is less than half the breadth of the wing, and grows narrower from the base to the tip by means of three successive large angles;* wing-ribs and veins black; scales pale tawny; poisers pitchy, tawny towards the base. Length of the body 4½ lines; of the wings 13 lines.

Columbia.

Anthrax gnata, Fem.

Nigra, fulvo-hirta, thorace nigro-fusco lateribus argenteis, antennis nigris, pedibus fulvo-piceis, alis fuscis fulvo guttatis ad apices oblique limpidis.

Black, clothed with pale tawny hairs: chest dark brown, silvery white along each side: abdomen slightly obconical, a little broader but not longer than the chest: legs pitchy, thinly clothed with black hairs and bristles; thighs and shanks adorned with a tawny tinge: *wings colourless, dark brown on more than half the surface from the base with the exception of a few small dulltawny spots; the outline of the brown part extends from four-fifths of the fore border to one-third of the hind border, and is nearly straight along most of its course, but angular towards the fore border;* wing-ribs and veins pitchy; poisers pale yellow. Length of the body 4 lines; of the wings 10 lines.

Anthrax congrua, Mas.

Nigra, capite argenteo-hirto, thoracis lateribus ferrugineo-hirtis, pectore cinereo, abdomine pilis ferrugineis basi nigris media argenteis fulvisque apice ornato, ventre albo-piloso, antennis nigris, pedibus piceis, alis fuscis ad apices oblique limpidis.

Black: head adorned with short silvery hairs: mouth pitchy: chest deep velvet-like black, adorned on each side with bright ferruginous

hairs: breast gray: abdomen obconical, much shorter than the chest, clothed on each side with black hairs, which are replaced by ferruginous hairs at the base and by silvery and pale tawny hairs near the tip; underside clothed with white hairs: legs pitchy, clothed with short black hairs and bristles: thighs tinged with gray: *wings very dark rich brown for near two-thirds of the length from the base, colourless thence to the tips; the outline of the brown is oblique, nearly straight, and extends from near three-fourths of the fore border to near one-half of the hind border;* wing-ribs and veins pitchy; poisers tawny with yellow knobs. Length of the body 4 lines; of the wings 10 lines.

ANTHRAX INCISA, Fem.

Nigra, nigro-hirta, thorace viridi micante, capite thoracisque lateribus ferrugineo alboque pilosis, abdominis apice fasciculis duabus fulvis ornato, antennis nigris, pedibus piceis, femoribus anterioribus fulvis, alis nigro-fuscis apice oblique limpidis.

Black: head clothed above with black hairs, in front with ferruginous tawny and white hairs, hoary and clothed with white hairs behind: sides of the peristoma tawny: mouth pitchy: chest adorned with black and bright green hairs, and on each side with bright ferruginous hairs, excepting the fore part where the hairs are white: breast gray, thickly clothed with white hairs: scutcheon and adjoining sides of the chest dark ferruginous: abdomen obconical, shorter than the chest, clothed with short black hairs, adorned with a tuft of pale tawny hairs on each side near the tip; underside clothed with white hairs towards the base with tawny hairs towards the tip: legs pitchy, clothed with short black hairs and bristles: thighs adorned with a tawny covering; four anterior thighs tawny: *wings very dark brown with some slight ferruginous streaks for much more than half the surface from the base; the outline of this brown is very oblique, has two curves and two distinct angles, and extends from three-fourths of the fore border to beyond half of the hind border;* wing-ribs and veins pitchy; scales very dark brown, deeply fringed; poisers tawny with yellow knobs. Length of the body 6—7 lines; of the wings 15—17 lines.

North America.

Anthrax reperta, Fem.

Nigro-fusca, nigro-pilosa, pectore cinereo, abdominis apice albo fasciculato, antennis nigris, pedibus piceis, alis fuscis apicem versus oblique limpidis.

Slender, tinged with dark brown, clothed with short black hairs: head clothed behind with dark tawny hairs: feelers black: breast gray: abdomen nearly elliptical, a little broader and longer than the chest; sides adorned with a tuft of white hairs at the base and with white hairs towards the tip: legs pitchy, clothed with very short black hairs and bristles: *wings rather long and narrow, dark brown on much more than half the surface from the base, colourless thence to the tips, the outline of this brown is nearly straight along the hinder half, and irregular with three angles along the fore half; it extends from five-sixths of the fore border to one-third of the hind border and is thus very oblique;* wing-ribs and veins pitchy, poisers pitchy with pale tawny tips. Length of the body 3½ lines; of the wings 10 lines.

South America.

Anthrax excisa, Mas.

Nigra, nigro-hirta, antennis nigris, pedibus piceis tarsis nigris, alis apicem versus oblique et undatim limpidis.

Black, thickly clothed with rather long black hairs: mouth pitchy: abdomen nearly elliptical, hardly longer than the chest: legs pitchy, clothed with short black hairs and bristles; feet black: *wings very dark rich brown on more than half the surface from the base, the outline of this brown is slightly irregular for one-third of the length from the fore border and has a deep inward curve from thence to the hind border, it extends from four-fifths of the fore border to beyond one-third of the hind border; tips bright white;* wing-ribs, veins and poisers black. Length of the body 4½ lines; of the wings 12 lines.

South America.

ANTHRAX REFERENS, Fem.

Nigra, capite pectore abdominisque segmentorum marginibus posticis ferrugineo-hirtis, thoracis lateribus albo-hirtis, abdominis basi fulvo-hirto lateribus albo nigroque fasciculatis, apice pilis albis interrupte bifasciato, ventre ferrugineo, antennis nigris, pedibus piceis, alis fuscis margine postico angulisque duabus limpidis.

Black: head clothed with short ferruginous hairs and on the crown with some black hairs: mouth pitchy: each side of the chest adorned with a stripe of white hairs: breast gray, clothed with ferruginous hairs: abdomen obconical, much shorter than the chest, adorned towards the tip with two interrupted bands of white hairs; base clothed with pale tawny hairs; hind borders of the segments clothed with short ferruginous hairs: sides adorned with alternate tufts of black and white hairs; underside ferruginous: legs pitchy, clothed with very short black hairs and bristles; thighs and shanks adorned with a tawny tinge: *wings dark brown from the base along the fore border to the tip and along the hind border to the end of the inferior part; this brown part includes a nearly colourless dot, and its outline has two deep and irregular inward curves;* wing-ribs and veins black; poisers pitchy with pale yellow tips. Length of the body 4—4½ lines; of the wings 11—12 lines.

East India.

ANTHRAX CONSTITUTA, Fem.

Nigra, flavo-hirta, pectore cinereo, abdominis lateribus nigro fasciculatis, pedibus nigris, alis nigris apice margineque postico limpidis.

Head wanting. Black: chest clothed in front and on each side with yellow hairs: breast gray, clothed with whitish hairs: abdomen nearly linear, clothed with yellow hairs, somewhat truncated at the tip; sides clothed with tufts of alternate black and yellow hairs: legs clothed with short black hairs and bristles: *wings very dark brown, colourless at the tips and along most part of the hind borders; the outline of the brown is nearly straight with the exception of a short space near the tip, where it projects into the colourless part; it extends from five-sixths of the fore border to one-fourth of the hind border;* wing-ribs and veins black; poisers tawny. Length of the body 6 lines; of the wings 15 lines.

South America.

Anthrax cedens, Fem.

Nigra, nigro-hirta, alis nigro-fuscis apice limpidis.

Deep black, clothed with black hairs: abdomen obconical, not longer than the chest: legs clothed with short black hairs and bristles: *wings very dark brown with the exception of a narrow stripe extending from the tip along the hind border; the outline of the brown is rather jagged and its limits are from nine-tenths of the fore border to rather beyond half the length of the hind border, it hardly includes a colourless streak which borders the cross-vein of the first posterior areolet;* wing-ribs and veins black; poisers black with tawny tips. Length of the body 3 lines; of the wings 11 lines.

United States.

Anthrax divisa, Mas.

Nigra, fulvo-hirta, pectore cinereo, abdominis lateribus basi ferrugineo-pilosis apice argenteo-pilosis, pedibus piceis, femoribus ferrugineo tectis, alis fuscis ad apices oblique sinuato-limpidis.

Deep black, thickly clothed with short black hairs: head clothed with short black hairs, in front with light tawny hairs, and behind with silvery hairs: mouth pitchy: sides of the chest and of the breast thickly clothed with bright tawny hairs: breast gray: abdomen slightly obconical, shorter than the chest, adorned on each side of the base with bright ferruginous hairs, and at the tip with silvery white hairs: legs pitchy, clothed with very short black hairs and bristles; thighs adorned with a ferruginous covering: *wings very dark rich brown on much more than half the surface from the base; the outline of this brown is oblique and extends from four-fifths of the fore border to much beyond one-third of the hind border; it has two concave curves, the hind one extremely slight, the fore one deeper;* wing-ribs and veins black; poisers tawny. Length of the body $5\frac{1}{2}$ lines; of the wings 12 lines.

South America.

ANTHRAX ILLATA, Fem.

Nigra, nigro-hirta, thoracis lateribus pilis flavis vittatis, abdominis fasciculis basi fasciis duabus apiceque albo-hirtis, pedibus nigris, tibiis fulvis, alis fuscis fulvo et cinereo guttatis, angulis duabus posticis incisis.

Black, clothed with deep black hairs: head wanting: each side of the chest adorned with a stripe of pale yellow hairs: breast tinged with brown: abdomen slightly obconical, a little broader but not longer than the chest, adorned with white hairs which form a tuft on each side of the base, two bands on the back and one at the tip: legs armed with black spines; shanks dark tawny; feet clothed with short black hairs: *wings very dark brown, adorned with some pale tawny and gray dots which are chiefly on the cross-veins; a colourless dot on the fore border near the tip, and two large irregularly-angular colourless intervals on the hind border, one a little beyond the middle, the other extending to the tip;* wing-ribs and veins black; poisers pitchy with pale yellow tips. Length of the body 4 lines; of the wings 12 lines.

——— ?

ANTHRAX RELATA, Mas.

Nigro-fusca, thoracis lateribus albo vittatis, abdomine albo bifasciato, antennis nigris, pedibus piceis, tibiis fulvis, alis nigro-fuscis fulvo guttatis apice margineque postice sinuato-limpidis.

Black: head gray behind, clothed with tawny hairs; crown clothed with black hairs: chest clothed with black hairs, adorned on each side with a stripe of white hairs; scutcheon pitchy; breast brown, clothed with tawny hairs: abdomen very deep brown, obconical, a little longer than the chest, clothed with black hairs which form a fringe on each side, adorned with two bands of white hairs, one on the first, the other on the fourth segment; there are also some white hairs near the tip which is black; underside pitchy, clothed with tawny hairs: legs pitchy, armed with black spines; shanks and tips of thighs tawny, the former adorned with gilded scales; feet clothed with short black hairs: *wings very dark brown, adorned with some little tawny marks which are mostly on the cross-veins, colourless from*

the tips along nearly two-thirds of the hind border; the outline of the brown has curves along the whole length, and between its two deepest indentations it extends nearly to the hind border of the wing; wing-ribs and veins black; poisers pitchy with pale yellow tips. Length of the body 4½ lines; of the wings 11 lines.

——— ?

ANTHRAX ÆQUA, Fem.

Nigro-fusca, scutelli margine postico albo-hirto, abdominis lateribus albo nigroque fasciculatis, antennis pedibusque nigris, alis limpidis maculis confluentibus guttisque fuscis ornatis.

Black, covered with brown, clothed with black hairs: a hoary tinge on the fore part of the head, whose hind part is gray and clothed with short white hairs: *chest and breast partly clothed with hoary and dark tawny hairs: hind border of the scutcheon adorned with a fringe of white hairs: abdomen* nearly elliptical, a little shorter and broader than the chest, *adorned with tufts of black and white hairs*, which last occupy nearly the whole of the back towards the tip: legs covered with reddish brown, adorned with white scales, armed with white spines: *wings colourless, brown at the base, adorned with numerous brown spots which are mostly confluent, and with brown dots which form a row along the fore border and a few shorter and less distinct rows on the disk; the tips and nearly two-thirds of the hind border are colourless with the exception of six round brown dots; the borders of the cross-veins are pale brown;* wing-ribs and veins black; poisers black with white tips. Length of the body 5 lines; of the wings 14 lines.

South America.

ANTHRAX SUCCEDENS, Fem.

Nigra, nigro-hirta, antennis nigris, pedibus piceis, tibiis fulvis, alis limpidis basi fuscis fusco bimaculatis.

Black, clothed with short black hairs and long black bristles: abdomen obconical, a little longer than the chest: legs pitchy, beset with black bristles; shanks dark tawny: *wings colourless, brown towards the base; the outline of the brown is irregular and in its upper course it projects into the colourless part; and it extends from near two-thirds of the fore border to*

one-fourth of the hind border; there are also two brown spots, one at the base of the tip cross-vein, the other at the base of the inner vein of the third submarginal areolet; wing-ribs, veins and poisers black. Length of the body 2½ lines; of the wings 7 lines.

——— ?

ANTHRAX ANTECEDENS, Fem.

Nigra, nigro-setosa, pedibus fulvis, femoribus nigris, alis limpidis basi fuscis fusco trimaculatis.

Black, rather thickly beset with black bristles which form a fringe in front of the chest; sides clothed with gray hairs: abdomen nearly elliptical, a little shorter than the chest: legs dark tawny, beset with black bristles; thighs black; feet pitchy towards the tips: *wings colourless, dark brown from two-thirds of the fore border to one-fourth of the hind border; the outline of the brown is irregular, and in its upper course it is deeply indented by the colourless part; there are three brown spots on the cross-veins* and of these the middle spot is in one wing attended by a satellite; wing-ribs and veins black; poisers tawny with pitchy knobs. Length of the body 3 lines; of the wings 8 lines.

United States.

ANTHRAX AUSTRALIS, Saunders MSS., Fem.

Nigro-fusca, nigro-hirta, thoracis lateribus posticis ferrugineis, abdominis lateribus albo bifasciculatis, antennis pedibusque nigris, alis nigro-fuscis, guttis apice margineque postico interrupte sinuato-limpidis fusco quinque-maculatis.

Very dark brown, clothed with black hairs: sucker and feelers black: sides of the hind part of the chest very dark ferruginous, beset with a small tuft of black bristles: abdomen a little shorter than the chest, slightly increasing in breadth from the base to the almost truncated tip, fringed with black hairs on each side which is adorned with two tufts of white hairs, one at the base, the other near the tip: legs black or pitchy, armed with black spines: feet clothed with very short black hairs: *wings very dark brown; borders of the cross-veins almost colourless; a colourless spot beneath the fore border near the tip, from which to far beyond half the length of the*

hind border the wings are colourless; this space contains five brown spots, and is interrupted by the brown part, which extends across its middle to the hind border, and nearer the base of the wing is deeply and irregularly indented by it; the outline of the brown is also irregular in other parts, and apparently consists of incomplete spots; wing-ribs and veins black; poisers black with white tips. Length of the body 4—4¼ lines; of the wings 13—14 lines.

Van Diemen's Land. Swan River.

Genus PHTHIRIA, *Meigen.*

Phthiria gracilis, Mas.

Nigra, pectore fusco, abdomine flavo-fusco, antennis nigris, pedibus piceis, tibiis ferrugineis, pedibus posticis nigris, alis cinereis ad costam subfuscis.

Deep black, clothed with black hairs: head clothed beneath with hoary hairs; peristoma pitchy: sucker nearly as long as the body: breast dark brown, some of its hairs tawny: abdomen obconical, yellowish brown, a little longer and narrower than the chest: legs pitchy, long and slender, clothed with short black hairs; shanks ferruginous; hind legs black: *wings gray, brownish beneath the fore border;* wing-ribs ferruginous; veins black, ferruginous at the base; poisers tawny; knobs pitchy above. Length of the body 2½ lines; of the wings 6½ lines.

East India.

Phthiria hilaris, Fem.

Nigra, capite thoracis lateribus scutello pectoreque flavis nigro variis, abdomine fulvo basi nigro fasciato apice compresso, antennis nigris, pedibus fulvis, femoribus piceo vittatis, tibiis apice piceis, tarsis nigris, alis limpidis.

Head whitish yellow, partly clothed with hoary hairs, black behind with the exception of a band along the hind borders of the eyes: mouth black, a little shorter than the chest: feelers black; third joint nearly linear for half the length, slightly tapering from thence to the tip, more than twice the length of the first joint: chest black; sides and breast yellow

varied with black: scutcheon yellow, adorned on the fore border with a black band which supports a short black stripe: abdomen tawny, obconical, a little shorter than the chest, adorned near the base with a broad black band; tip compressed: legs tawny; thighs with pitchy streaks; tips of the shanks pitchy; feet black: *wings quite colourless;* wing-ribs tawny; veins black, tawny towards the base and along the fore border; poisers tawny with pitchy knobs. Length of the body 3½ lines; of the wings 7 lines.

New South Wales.

PHTHIRIA COMPRESSA, Plate 6, fig. 3.

Genus GERON, *Hoffmansegg.*

GERON CAPENSIS, Mas.

Nigra, albo-hirta, pedibus fulvis, tarsis apice genubusque piceis, alis albidis.

Black, thickly clothed with silvery hairs: mouth a little longer than the body: abdomen obconical, narrower and a little longer than the chest: *legs pale tawny*, beset with very short black bristles; *feet pitchy towards the tips;* hips and claws black; *knees pitchy: wings whitish;* wing-ribs yellow; veins tawny, yellow at the base and along the fore border; poisers yellow. Length of the body 2½ lines; of the wings 5 lines.

Cape.

Genus PHILOPOTA, *Wiedemann.*

PHILOPOTA SOBRIA, Mas.

Ferruginea, capite piceo, thorace vittis obliquis flavis ornato, lateribus scutello ventreque fulvis, antennis nigris, pedibus fulvis, alis subcinereis.

Body ferruginous: head pitchy: eyes black, meeting on the crown; facets of moderate size: sucker pale tawny, a little longer than the body: feelers black, very short: two diagonal stripes crossing each other in front of the chest; *breast and sides of the chest tawny: abdomen* obconical, much longer than the chest, *tawny on each side and beneath:* legs tawny: wings

slightly gray; wing-ribs and veins pitchy; scales pale tawny; poisers yellow. Length of the body 4½ lines; of the wings 9 lines.

South America.

Philopota temperata, Mas.

Fusca, flavo varia, antennis nigris, pedibus flavis, alis subcinereis.

Body dark brown: head convex and adorned with a yellow mark above the base of the feelers: *breast and sides of the chest yellow in front; each side of the chest adorned with two oblique yellow bands*, of these the front pair are short and approach very near each other on the back, the hind pair are more remote and extend above the base of the wings as far as each side of the fore border of the scutcheon; above the latter are two short stripes, and its sides and hind border are adorned with a yellow semicircle: *abdomen yellow beneath and at the tip; hind borders of the dorsal segments adorned with yellow bands* which are interrupted in the middle, and become successively narrower and less distinct from the base to the tip: legs yellow: the other characters like those of the preceding species. Length of the body 4½ lines; of the wings 8 lines.

South America.

PARISUS, n. g.

Phthiria *affinis: areola 1a posterior margine remota.*

Allied to *Phthiria*, but the first posterior areolet is closed at some distance from the border.

Parisus paterculus, Fem., Plate 5, fig. 8.

Niger, albido-hirtus, scutello abdominisque apice fulvis, antennis basi pedibusque flavis, alis albidis.

Body black, clothed with long whitish hairs: eyes black; all the facets very small: sucker black, as long as the chest: first and second joints of the feelers pale yellow: scutcheon tawny: abdomen obconical, not longer than the chest; tip tawny: legs yellow, long and slender: wings whitish; wing-ribs yellow; veins tawny, yellow at the base and along the fore border; poisers yellow. Length of the body 1½ line; of the wings 4 lines.

Cape.

TABUDA, n. g.

Apatomyzæ affinis. Areolæ posteriores quinque; 1a longa; 2a 3aque breves, longitudine æquales; 4a 3â duplo longior; 5a 4â multo latior et paullo longior; areola 1a inferior clausa.

Allied to *Apatomyza*, but there are five posterior areolets; the first is long; the second and third short and of equal length; the fourth is about twice the length of the third; the fifth is much broader and a little longer than the fourth; the first inferior areolet is closed.

Tabuda fulvipes, Mas, Plate 6, fig. 4.

Nigra, capite subtus pectoreque albo-hirtis, abdomine cinereo, ventre apiceque fulvis, antennis pedibusque fulvis, alis subcinereis basi et ad costam subfulvis, cellularum discis subalbidis, nervis transversis nigro subnebulosis.

Black: head clothed with black hairs; underside very thickly clothed with white hairs: eyes parted by a narrow interval on the crown; all the facets very small: sucker not longer than the head; palpi black, beset with black hairs: feelers very dark tawny; first and second joints very thickly beset with black bristles: breast hoary, clothed with white hairs: abdomen gray, nearly linear, a little longer and narrower than the chest, clothed with hoary hairs; underside and tip tawny: legs tawny, beset with black bristles which are mostly on the shanks: wings pale gray, slightly tawny at the base and along the fore border as far as the brand which is brown; disks of the areolets partly whitish; cross-veins slightly clouded with black; wing-ribs tawny; veins tawny at the base and along the fore border; scales colourless; poisers tawny. Length of the body 3½ lines; of the wings 7 lines.

CHORISTUS, n. g.

Proboscis thorace multo longior. Antennis articulus 1us longus, linearis; 2us brevissimus; 3us 1i longitudine, setaceus. Areolæ submarginales 2; areolæ posteriores 4; areolæ discoidales 3; areola 1a inferior aperta.

Mouth much longer than the chest: first joint of the feelers long, linear; second very short; third as long as the first, tapering from the base to the tip which ends in a very little spine; two submarginal areolets; three posterior areolets, or in other words four, but the first is closed before the border and thus forms a discoidal areolet; three more discoidal areolets; first inferior areolet open to the border.

Choristus bifrons, Mas, Plate 5, fig. 5.

Niger, flavo-hirtus, capite albo-piloso, tibiis fulvis, alis flavo-fuscis apice margineque postico subcinereis.

Black, thickly clothed with dull pale yellow hairs: head thickly clothed with white hairs; a few black hairs on the crown: sucker much longer than the chest; lancets with tawny tips: first joint of the feelers long and linear; second very short; third as long as the first, tapering from the base to the tip which ends in a very little spine: chest *thickly clothed with dull pale yellow hairs:* abdomen slightly obconical, a little shorter than the chest: legs beset with tawny bristles; thighs adorned with a hoary covering; shanks tawny with black tips; wings yellowish brown from the base to three-fourths of the fore border, pale gray from thence to the tips and along the hind border; wing-ribs pitchy; veins black, pitchy towards the base; poisers tawny with yellow tips. Length of the body $2\frac{3}{4}$ lines; of the wings 7 lines.

New South Wales.

Genus BOMBYLIUS, *Linn.*

Group A. — C. D. B. M. 273.

Cross-veins along the hind border of the wing forming an interrupted line. Discoidal areolet closed. The little cross-vein at three-fifths of the length of the discoidal areolet.

Bombylius viduus, Fem.

Ater, nigro-hirtus, thoracis lateribus fulvo-pilosis, antennis nigris, pedibus fulvis, tarsis piceis, alis cinereis costa basali fuscis.

Black: head clothed above with black hairs, and partly in front with tawny hairs: *mouth about half the length of the body: chest clothed with black hairs, having a fringe of pale tawny hairs on each side: abdomen* slightly obconical, a little broader and much shorter than the chest, *beset on each side and at the tip with black bristles: legs tawny*, armed with black bristles and spines; *feet pitchy: wings dark gray, dark brown beneath the fore border, across half the breadth and along half the length from the base;* wing-ribs and veins pitchy; poisers tawny with yellow knobs. Length of the body 3 lines; of the wings 8 lines.

Van Diemen's Land.

Group D.—C. D. B. M. 276.

Characters of Group A. The little cross-vein somewhat before two-thirds of the length of the discoidal areolet.

Bombylius recedens, Fem.

Niger, fulvo-hirtus, antennis nigris, pedibus fulvis, femoribus basi nigris, alis sublimpidis vitta ad costam fulva fusco marginata.

Black, rather narrow, thickly clothed with pale tawny hairs; some black hairs in front of the head: mouth about half the length of the body: abdomen obconical, a little longer than the chest, *with some black hairs at the tip: legs tawny*, beset with a few black bristles; *thighs black towards the base; feet pitchy towards the tips: wings nearly colourless*, with a short fringe of black bristles on the base of the fore border; *a broad tawny stripe occupies the base and extends thence beneath the fore border for more than three-fourths of the length; it is bordered in the disk with brown which has a darker hue on the cross-veins;* wing-ribs tawny; veins black, partly tawny at the base and along the fore border; poisers tawny with pitchy knobs. Length of the body $3\frac{1}{2}$ lines; of the wings 9 lines.

Group G.—C. D. B. M. 279.

Characters of Group A. The little cross-vein at half the length of the discoidal areolet.

Bombylius maculifer.

Niger, fulvo-hirtus, capite subtus pectoreque albo-hirtis, thoracis lateribus abdominisque maculis quatuor albo-hirtis, abdominis fascia fusco-hirta maculisque dorsalibus argenteis, pedibus fulvis, alis basi et ad costam oblique fuscis.

Black, clothed with tawny hairs: *head mostly clothed above with black hairs, clothed beneath with white hairs;* peristoma and epistoma tawny: *mouth longer than the body: a stripe of whitish hairs on each side of the chest:* breast clothed with whitish hairs: *abdomen* a little shorter and broader than the chest, its length not exceeding its breadth, *adorned with a broad band of brown hairs and with four tufts of whitish hairs, one on each side of the fore border, the other on each side of the hind border of the band; a stripe composed of spots of short silvery white hairs, one on the back of each segment:* legs tawny with a whitish tinge, beset with black bristles; feet darker towards the tips: *wings colourless, dark brown from three-fourths of the fore border to one-fourth of the hind border; the outline of the brown is slightly notched in the middle and just includes the cross-veins of the disk;* wing-ribs tawny; veins black, tawny at the base and along the fore border; poisers yellow. Length of the body 5 lines; of the wings 12 lines.

Group H.—C. D. B. M. 281.

Characters of Group A. The little cross-vein somewhat before half the length of the discoidal areolet.

Bombylius signifer, Mas.

Ater, nigro-hirtus, thorace cano-hirto, abdominis lateribus albo nigroque fasciculatis, antennis pedibusque nigris, alis albidis.

Black: head thickly clothed in front with black hairs: mouth more than half the length of the body: chest clothed with hoary hairs: breast

clothed with black hairs: *abdomen* obconical, much longer than the chest, adorned on each side with tufts of black hairs and near the tip with a tuft of white hairs: legs black: wings whitish; wing-ribs pitchy; veins black, tawny towards the base; poisers black. Length of the body 4 lines; of the wings 8 lines.

Group L.—C. D. B. M. 284.

Characters of Group A. The little cross-vein somewhat beyond one-third of the length of the discoidal areolet.

Bombylius socius, Fem.

Niger, fulvo-hirtus, capite subtus albo-hirto, scutello rufo, abdominis lateribus apiceque nigro-setosis, pedibus fulvis, alis subcinereis basi fulvis.

Black, very thickly clothed with pale tawny hairs: head mostly clothed above with black hairs, clothed beneath with white hairs: *mouth rather shorter than the body: scutcheon red:* sides and tip of the abdomen beset with black bristles: *legs tawny;* feet pitchy towards the tips: *wings pale gray, tawny at the base;* wing-ribs tawny; veins black, tawny at the base and along the fore border; poisers tawny. Length of the body $4\frac{1}{2}$—5 lines; of the wings 11—12 lines.

East Indies.

Group M.—C. D. B. M. 286.

Characters of Group A. Head very broad. The little cross-vein at one-third of the length of the discoidal areolet.

Bombylius distinctus, Fem.

Niger, fulvo-hirtus, scutello thoracisque postici lateribus fulvis, antennis nigris basi piceis, pedibus fulvis, alis subcinereis ad costam fulvis.

Black, thickly clothed with bright tawny hairs above and with yellowish white hairs beneath: *head nearly as broad as the chest:* sucker rather thick towards the tip, hardly half the length of the chest: first and second joints of the feelers pitchy, clothed with tawny hairs: scutcheon and sides of the

hind part of the chest tawny: abdomen slightly obconical, a little shorter than the chest: *legs pale tawny; feet darker, their tips black: wings slightly gray, tawny for some space beneath the fore border;* wing-ribs tawny; veins black, tawny in the tawny parts of the wing; poisers tawny with whitish knobs. Length of the body 5—6 lines; of the wings 12—14 lines.

New South Wales. Swan River.

Group N.—C. D. B. M. 288.

Cross-veins along the hind border of the wing forming an interrupted line. Head very broad. Discoidal areolet open.

BOMBYLIUS BREVIROSTRIS? *Macq.*, Fem.

Niger, fulvo-hirtus, antennis nigris basi piceis, pedibus fulvis, tibiis apice piceis, tarsis nigris, alis limpidis.

Black, stout, very thickly clothed with tawny hairs: *head broad:* eyes parted above by a broad interval: sucker rather shorter than the chest: first and second joints of the feelers pitchy, clothed with dark tawny hairs; first long; second short; third tapering to the tip, a little longer than the second: abdomen nearly oval, hardly narrower and not longer than the chest: *legs dark tawny,* beset with short bristles; *shanks pitchy towards the tips; feet black: wings colourless;* wing-ribs and veins tawny; veins darker along the hind border and towards the tips; poisers yellow. Length of the body 3½ lines; of the wings 7 lines.

———?

Fam. INFLATÆ, *Latr.*

EXETASIS, n. g.

Cyrto affinis: areolæ costales 3, submarginales 1, posteriores 4, inferiores 2, et discoidales 4; areola 1a inferior margine clausa.

Distinguished from *Cyrtus* by the wing-veins; there are three costal, one submarginal, four posterior, two inferior, and four discoidal areolets; the stump of a vein projects from the inner side into the disk of the third posterior areolet; the first inferior areolet is closed on the border.

Exetasis tumens, Plate 5, fig. 1.

Fulva, capite thoracisque disco nigris, abdominis segmentorum picco fasciatis, antennis nigris basi fulvis, pedibus fulvis, alis subcinereis.

Black, thickly clothed with short tawny hairs: eyes black; the facets very small: feelers black, tawny at the base: scutcheon and sides of the chest tawny; breast mostly tawny: abdomen tawny, increasing in breadth from the base till near the tip, a little longer and broader than the chest; each segment adorned with a pitchy band which is widened and somewhat angular towards the fore border: legs tawny: wings pale gray; wing-ribs and veins tawny; the latter partly black; scales pale gray; poisers tawny. Length of the body 5 lines; of the wings 10 lines.

Brazil.

Genus HENOPS, *Illiger.*

Henops basalis, Mas.

Piceus, capite nigro, abdomine fulvo maculis utrinque discoque nigris, segmentorum marginibus posticis albis, antennis nigris, pedibus fulvis, femoribus basi tarsisque nigris, alis limpidis.

Head black: feelers black: *chest and breast pitchy:* chest thickly clothed with short pale tawny hairs: *abdomen tawny with a row of black spots on each side; hind borders of the segments white; disk mostly black for full half the length from the base; underside with an interrupted slender black band on the fore border of each segment: legs tawny; hips, thighs for half the length from the base, and feet black:* wings colourless; wing-ribs pitchy; veins dark tawny; scales white. Length of the body 2 lines; of the wings 4 lines.

New South Wales.

Henops costalis, Mas.

Piceus, capite nigro, thoracis margine vittisque duabus fulvis, abdominis segmentorum marginibus posticis albidis, alis limpidis.

Head black: feelers tawny: chest and breast pitchy, clothed with pale tawny hairs; *chest adorned with a tawny border and two tawny stripes:*

abdomen pitchy; hind borders of the segments whitish: legs pitchy; hips beneath, knees and fore-feet tawny: wings colourless; wing-ribs and veins dark tawny; veins partly pitchy along the fore border; scales pale gray with tawny borders. Length of the body 1½ line; of the wings 3 lines.

East Indies.

Fam. EMPIDÆ, *Meigen.*

Genus EMPIS, *Linn.*

Empis fimbria, Fem.

Niger, cinerascens, antennis pedibusque nigris, his latissime ciliatis, alis limpidis basi subfuscis.

Black, tinged with gray: head and chest thinly clothed with black hairs: eyes dark red: mouth pitchy: abdomen clothed with short black hairs: *legs* covered with iridescent down, very *deeply fringed with black hairs: wings colourless, pale brown at the base;* wing-ribs, veins and poisers pitchy. Length of the body 1 line; of the wings 2½ lines.

Brazil.

Genus HILARA, *Meigen.*

Hilara litorea, *Fallen.*

Van Diemen's Land.

Hilara certa, Fem.

Nigro-cinerea, thorace quadri-vittato, antennis nigris, pedibus fulvis, femoribus tibiis tarsisque apice nigris, alis subfuscis.

Black, dull, *tinged with gray which forms four stripes on the chest*, clothed with short black hairs: eyes red: mouth pitchy, nearly as long as the chest: feelers black: *legs tawny*, beset with short black hairs and bristles; *tips of thighs and of shanks black; feet black, tawny at the base: wings pale brown*, palest in the disks of the areolets in the middle part: wing-ribs tawny; veins black, tawny at the base; poisers tawny. Length of the body 2½ lines; of the wings 6 lines.

Van Diemen's Land.

HILARA CONFIRMATA, Mas.

Nigra, pedibus piceis, alis sublimpidis.

Black, thinly clothed with black hairs and bristles: eyes pitchy: sucker black, much shorter than the chest: feelers black: *legs pitchy: wings nearly colourless; cross-veins clouded with brown;* wing-ribs pitchy; veins black, pitchy at the base; poisers yellow. Length of the body $1\frac{3}{4}$ line; of the wings 4 lines.

Van Diemen's Land.

Fam. HYBOTINÆ, *Meigen.*

Genus HYBOS, *Fabr.*

HYBOS DIMIDIATUS, Mas et Fem.

Nigro-æneus, antennis nigris, tibiis piceis, tarsis fulvis, alis nigro-fuscis apice limpidis.

Head black, clothed with very few black hairs: eyes dark red: mouth pitchy: feelers black: *chest brassy black,* shining, clothed with brown hairs: *abdomen coppery:* legs shining; *thighs brassy black; knees ferruginous; shanks pitchy; feet tawny: wings dark brown and widened on the fore border for a little more than half the length from the base, colourless thence to the tips;* wing-ribs and veins black; poisers pitchy. Length of the body $1\frac{1}{2}$ line; of the wings $3\frac{1}{2}$ lines.

Brazil.

HYBOS INTEGER, Mas.

Nigro-æneus, thoraci vittis duabus fuscis, tibiis piceis, tibiis intermediis tarsisque fulvis, alis nigro-fuscis apice fuscis.

Black: eyes dark red: mouth pitchy: feelers black: *chest slightly chalybeous,* clothed with brown hairs, *adorned with two indistinct brown stripes: abdomen coppery,* fringed with black hairs on each side towards the base: legs beset with black hairs and bristles; *thighs coppery; shanks pitchy; knees, feet and middle-shanks tawny: wings brown, blackish brown with a widened fore border for more than half the length from the base;*

wing-ribs and veins black; poisers pitchy. Length of the body $1\frac{3}{4}$ line: of the wings 4 lines.

Brazil.

Hybos ruficollis, Fem.

Niger, thorace luteo, antennis flavis, pedibus fulvis, alis limpidis apice subfuscis.

Head black: eyes red; facets very large: sucker tawny: feelers yellow: *chest luteous: abdomen black*, shining, thinly clothed with hoary hairs: *legs tawny*, clothed with pale yellow hairs; *feet dark tawny: wings nearly colourless, pale brown at the tips; a spindle-shaped dark brown spot near the tip of the fore border;* wing-ribs tawny; veins black, tawny at the base; poisers tawny. Length of the body $1\frac{1}{2}$ line; of the wings 4 lines.

Brazil.

Fam. DOLICHOPODES, *Latr.*

Genus DIAPHORUS, *Meigen.*

Diaphorus femoratus, Mas.

Aureo-viridis albo-florens, antennis nigris, pedibus fulvis, femoribus nigris, alis sublimpidis.

Green: head white in front, clothed beneath with white hairs; two black bristles on the tubercle of the eyelets: eyes red: mouth and feelers black: chest and abdomen beset with black bristles: *chest* slightly tinged with whitish bloom, *adorned with a golden hue which is most prevalent in front:* breast hoary; *abdomen brassy green, bluish at the tip:* legs tawny, clothed with black hairs and bristles; thighs black: *wings nearly colourless;* wing-ribs tawny; veins black; poisers yellow. Length of the body $1\frac{1}{2}$ line; of the wings 3 lines.

Brazil.

Genus PSILOPUS, *Megerle.*

Psilopus lepidus, Mas.

Viridis, abdominis segmentorum marginibus anticis nigris, antennis pedibusque nigris, alis limpidis fusco bifasciatis.

Bright green, beset with black bristles: *head blue, tinged with purple*, adorned in front with white bloom: eyes bright red: mouth black: *feelers black; sixth joint as long as the chest: chest* not shining, *tinged with blue:* breast with a hoary covering: *abdomen* tapering from the base to the tip, narrower and much longer than the chest; *a black band on the fore border of each segment: legs black*, clothed with black hairs and bristles: *wings colourless, adorned with two dark brown bands which are united on the fore border; tip cross-vein forming a right angle, whence it is indistinctly waving to the tip of the wing; lower cross-vein very slightly waving:* wing-ribs and veins black. Length of the body $2\frac{1}{2}$ lines; of the wings 6 lines.

Mexico.

Psilopus electus, Mas et Fem.

Purpureus, pectore abdominisque fasciis viridibus, antennis pedibusque nigris, tibiis fulvis, alis sublimpidis costa fasciisque duabus connexis fuscis.

Purple, beset with black bristles: *head blue, tinged with purple on the crown, green in front*, with a white bloom about the mouth: eyes red: mouth black: *feelers black, sixth joint shorter than the chest: chest partly blue: breast green: abdomen* longer and narrower than the chest, *of the male* cylindrical *with alternate purple and green bands*, of the female obconical: *legs black;* thighs thinly clothed with white hairs; *shanks tawny: wings nearly colourless, dark brown along the fore border for near half the length from the tip; from this stripe two broad irregular bands proceed near to the hind border, are there connected, and thus include a square colourless spot; tip cross-vein forming a slightly acute angle; lower cross-vein very slightly waving;* wing-ribs and veins black; poisers yellow. Length of the body $1\frac{1}{2}$ line; of the wings 4 lines.

Brazil.

Psilopus exemptus, Mas.

Purpureo-cyaneus, thorace viridi, abdominis segmentorum marginibus anticis nigris, antennis pedibusque nigris, tibiis anticis fulvis, alis sublimpidis costa fasciisque duabus connexis fuscis.

Body beset with black bristles: *head blue, tinged with purple and green*, adorned with a white covering in front, clothed with white hairs beneath: eyes red: *feelers black;* first and second joints beset with long black bristles; *sixth joint nearly as long as the chest: chest bright green* with a whitish tinge in front: *abdomen purplish blue*, cylindrical, very much longer than the chest; *fore borders of the segments black; legs black*, long and slender, clothed with short black hairs; *fore shanks tawny: wings nearly colourless; a brown stripe along the fore border is broader towards the tip but narrow and interrupted towards the base, it sends forth two irregular bands which approach the hind border, and are slightly connected by a streak along the third longitudinal vein; the fourth vein is also clouded with brown;* wing-ribs, veins, and poisers black; *tip cross-vein forming a slightly acute angle; lower cross-vein very slightly waving.* Length of the body $2\frac{1}{4}$ lines; of the wings 5 lines.

Brazil.

Psilopus nitidus, Mas et Fem.

Cyaneo-viridis aureo et purpureo varius, fem. *abdominis segmentorum marginibus anticis nigris, antennis pedibusque nigris, tibiis fulvis, alis limpidis fusco bifasciatis.*

Bluish green, adorned with white lustre, beset with black bristles: head clothed beneath with white hairs; *crown purplish blue:* eyes bright red: *feelers black;* first and second joints beset with black bristles; *sixth nearly as long as the chest: front of the chest and base of the abdomen tinged with a golden hue: abdomen* longer than the chest; of the male cylindrical, *purplish blue at the tip where the appendages are black;* of the female obconical, *fore borders of the segments blackish: legs black*, beset with black bristles, clothed with black down; thighs thinly clothed with white hairs; *shanks dark tawny: wings pale gray; a large brown spot extends along near half of the fore border, ceases before the tip and sends forth two bands which occupy the cross-veins, that nearest the tip shortly terminates and incloses a*

square colourless spot by its connexion with the other which extends near to the hind border; wing-ribs and veins black; *tip cross-vein much bent, forming nearly a right angle; lower cross-vein very slightly waving;* poisers pitchy. Length of the body $1\frac{1}{2}$ line; of the wings $3\frac{1}{2}$ lines.

PSILOPUS EXIMIUS, Mas.

Cyaneo-viridis purpureo varius, abdominis segmentorum suturis nigro-æneis, antennis nigris, pedibus piceis, tibiis anterioribus fulvis, alis subcinereis.

Bright bluish green, beset with black bristles: front of the head and breast adorned with a white covering; *crown purplish:* eyes bright red: mouth tawny: *feelers black; sixth joint a little longer than the chest: chest indistinctly striped; scutcheon purple: abdomen* about twice the length of the chest, nearly cylindrical, slightly tapering to the tip, *adorned with two purple bands; sutures of the segments and tip brassy black; appendages tawny: legs pitchy*, covered with black down, beset with a few black bristles; *tips of the thighs and four front shanks tawny: wings very slightly grayish;* wing-ribs and poisers tawny; veins black, tawny at the base; *tip cross-vein forming a slightly obtuse angle; lower cross-vein with two deep curves.* Length of the body 4 lines; of the wings 8 lines.

New Holland.

PSILOPUS VENUSTUS, Mas.

Aureo-viridis, abdomine basi subtusque fulvo, antennis basi pedibusque fulvis, femoribus flavis, alis subcinereis.

Golden green, adorned with a white bloom, beset with black bristles: eyes bright red, with a crimson tinge: mouth tawny: *first and second joints of the feelers tawny*, beset with short black bristles: *abdomen* tapering, clothed on each side of the base with white hairs, narrower than the chest and near twice its length, *tawny at the base and beneath, coppery and cylindrical towards the tip: legs tawny*, beset with few black bristles, clothed with very short black hairs, which as in the following species of this genus and of *Dolichopus*, form parallel rows: *thighs yellow: wings very pale gray; tip of the fore border and cross-veins slightly clouded with darker colour;* wing-ribs and poisers tawny; veins black, tawny towards the

base; *tip cross-vein forming a slightly obtuse angle; lower cross-vein with two deep curves; between which there is a short stump.* Length of the body 3 lines; of the wings 6 lines.

West Australia.

Psilopus exquisitus.

Purpureus, abdominis basi et segmentorum marginibus anticis viridibus, antennis nigris, pedibus piceis, alis subcinereis.

Broad, bright purple, beset with black bristles: *head green about the base of the feelers*, clothed beneath with white hairs; epistoma and breast adorned with a whitish covering: eyes bright red: mouth pitchy: *feelers black*; first and second joints beset with black bristles: *abdomen* tapering from the base to the tip, longer and narrower than the chest, *green at the base and on the fore border of each segment: legs pitchy*, clothed with very short black hairs; thighs thinly clothed with long white hairs: *wings very slightly gray;* wing-ribs and veins black; *tip cross-vein forming a right angle; lower cross-vein very slightly waving;* poisers pitchy. Length of the body $2\frac{1}{2}$ lines; of the wings 5 lines.

Brazil.

Psilopus elegans, Mas.

Viridis, antennis nigris, pedibus flavis, alis limpidis.

Bright green, beset with black bristles: *front of the head purplish blue*, adorned like the breast with a white covering: eyes bright red: mouth yellow: feelers black; *sixth joint nearly as long as the chest: abdomen* cylindrical, twice the length of the chest; *appendages of the tip tawny: legs yellow*, clothed with very short black hairs, beset with a few black bristles: *wings colourless;* wing-ribs tawny; veins black, tawny at the base; poisers ferruginous; *tip cross-vein curved, not angular; lower cross-vein very slightly waving.* Length of the body $1\frac{1}{2}$ line; of the wings $2\frac{1}{2}$ lines.

East Indies.

Psilopus sublectus, Fem.

Viridis, antennis nigris, pedibus fulvis, genubus tarsisque piceis, alis subcinereis.

Green, thickly beset with black bristles, adorned beneath with a whitish covering: eyes bright red: mouth tawny: *feelers black; sixth joint nearly as long as the chest:* abdomen obconical, longer than the chest: *legs tawny*, clothed with very short black hairs; *knees and feet pitchy; wings slightly gray;* wing-ribs and poisers tawny; veins black, tawny at the base. Length of the body 1½ line; of the wings 3 lines.

Van Diemen's Land.

Psilopus gemmarius, Plate 6, fig. 2.

Genus MEDETERUS, *Fischer.*

Medeterus exustus, Fem.

Nigro-æneus, capite antico viridi, abdomine purpureo-cupreo, antennis pedibusque nigris, femoribus æneis, alis cinereis costa venarumque marginibus fuscis.

Allied to *M. notatus. Bronze-black*, beset with black bristles which form a cross row behind the head, adorned beneath with a whitish covering: *head green in front*, clothed beneath with black hairs; peristoma prominent: eyes red; facets of the fore part rather large: *feelers black: abdomen* obconical, *coppery with a slight purplish tinge*, not longer than the chest: *legs* long, *black*, thickly clothed with black down, beset with a few black bristles; *thighs brassy*, armed with black spines: foot-cushions dark tawny: *wings darkish gray, very dark brown beneath the fore border and along the borders of the veins in the disk;* wing-ribs and veins black; poisers dark tawny with pitchy knobs. Length of the body 2⅓ lines; of the wings 6 lines.

Bolton. North America.

Medeterus viridiflos, Fem.

Fulvo-viridis, thoracis disco fusco, antennis pedibusque nigris, femoribus viridibus, alis subcinereis ad costam subfuscis.

Pale grassy green, tinged with tawny above and with whitish bloom beneath, beset with a few black bristles: *head brown about the eyelets*, beset behind the eyes with a row of black bristles, clothed beneath with white hairs: eyes red, thickly clothed with short white hairs: *feelers black: disk of the chest brownish:* abdomen obconical, longer than the chest, clothed with very short white hairs: *legs black*, clothed with very short black hairs, beset with black bristles; *thighs green*, with which colour the shanks are also tinged: *wings slightly gray, tinged with pale brown beneath the fore border;* wing-ribs and poisers tawny; veins black, tawny at the base. Length of the body $1\frac{1}{2}$ line; of the wings $4\frac{1}{2}$ lines.

North America.

Genus DOLICHOPUS, *Latr.*

Dolichopus bifrons, Fem.

Æneo-viridis, capitis vertice cyaneo, abdominis segmentorum marginibus anticis cupreis, antennis fulvis, pedibus flavis, alis subcinereis.

Green, beset with black bristles, adorned beneath with a white covering: *crown of the head blue, tinged with green and purple; an olive stripe between the feelers and the epistoma:* eyes red: mouth pitchy: *feelers tawny; third joint pitchy towards the tip; sixth black, feathered: a brassy tinge on the chest: abdomen* obconical, longer than the chest, *coppery on the fore border of each segment* whose sides are adorned with a white covering: *legs yellow*, clothed with very short black hairs which as usual are most frequent on the feet; *thighs stout;* shanks beset with black bristles: *wings very slightly gray;* wing-ribs tawny; veins black, tawny at the base; poisers yellow. Length of the body $1\frac{1}{2}$—$1\frac{3}{4}$ line; of the wings $3\frac{1}{2}$—4 lines.

United States.

Dolichopus consors, Fem.

Æneo-viridis, vertice purpureo, thorace antico cyaneo, abdominis suturis nigris, antennis pedibusque fulvis, alis subcinereis.

Green, beset with black bristles, adorned beneath with a whitish covering: *crown purple:* eyes black: mouth tawny: *feelers tawny; sixth joint black, feathered with much shorter hairs than those of D. bifrons: chest brassy green, blue in front: abdomen* obconical, clothed with short black hairs, a little longer than the chest; *sutures of the segments blackish: legs tawny*, clothed with very short black hairs; shanks beset with black bristles: *wings grayish;* wing-ribs tawny; veins black, tawny at the base; poisers tawny with yellow knobs. Length of the body 1¼ line; of the wings 3 lines.

United States.

Dolichopus contingens, Fem.

Viridis, vertice purpureo, antennis pedibusque fulvis, alis subcinereis.

Green, beset with black bristles, adorned beneath with a whitish covering: *crown purple:* eyes black: mouth tawny: *feelers tawny; sixth joint black, feathered like that of D. consors:* abdomen obconical, clothed with short black hairs, a little longer than the chest: *legs tawny*, clothed with very short black hairs; shanks beset with black bristles: *wings grayish;* wing-ribs tawny; veins black, tawny at the base; tip cross-vein less angular than that of *D. consors;* poisers dark tawny. Length of the body 1¼ line; of the wings 3 lines.

United States.

Dolichopus hebes, Fem.

Æneus, vertice cyaneo, abdominis segmentorum marginibus posticis viridibus, antennis pedibusque fulvis, alis cinereis costa venarumque marginibus fuscis.

Brassy, beset with black bristles, adorned beneath with a whitish covering: *crown of the head blue:* eyes red: *feelers tawny; sixth joint black, feathered with very short hairs: abdomen* obconical, longer than the chest;

hind borders of the segments green : legs dark tawny, clothed with very short black hairs ; shanks beset with black bristles: *wings gray, brown beneath the fore border, and along the borders of the veins ;* wing-ribs and veins black ; poisers tawny with pitchy knobs. Length of the body 1¼ line; of the wings 3 lines.

United States.

Dolichopus ineptus, Fem.

Æneus, vertice purpureo, abdominis lateribus albo maculatis apice viridi, antennis pedibusque fulvis, tarsis subpiceis, alis cinereis fusco vittatis.

Brassy, beset with black bristles, adorned beneath with a whitish covering : *crown purple :* eyes red : *feelers tawny ; sixth joint black feathered with moderately long hairs : abdomen* obconical, longer than the chest, *green at the tip ; a white spot on each side of every segment : legs dark tawny*, clothed with very short black hairs ; shanks beset with black bristles ; *feet almost pitchy : wings gray, tinged with brown along the third and fourth longitudinal veins ;* wing-ribs tawny ; veins black ; poisers tawny with ferruginous knobs. Length of the body 1¼ line ; of the wings 3 lines.

United States.

Dolichopus maculipes, Fem.

Æneo-viridis purpureo varius, antennis fulvis apice piceis, pedibus fulvis, tibiis nigro maculatis, tarsis piceis, alis cinereis costa nervorumque marginibus fuscis.

Brassy green, beset with black bristles, adorned beneath with a whitish covering : *crown adorned with blue and purple :* eyes red : *feelers tawny ; third joint pitchy ; sixth black, feathered with moderately long hairs : disk of the chest partly purple :* abdomen obconical, a little longer than the chest, clothed with short black hairs : *legs tawny*, clothed with very short black hairs ; shanks beset with black bristles ; *feet almost pitchy ; a black spot on the tip of each thigh ; five or six black spots on each shank*, these spots are most distinct on the hind legs : *wings gray, brown beneath the fore border and along the borders of the veins ;* wing-ribs and poisers tawny ; veins black. Length of the body 1½ line ; of the wings 3½ lines.

United States.

Dolichopus pulcher, Mas et Fem.

Cyaneo-viridis, antennis nigris, femoribus viridibus, tibiis fulvis, tarsis piceis apice nigris, alis limpidis.

Bright green with a bluish tint, beset with black bristles, adorned beneath with a whitish covering: eyes bright red: *feelers black;* sixth joint *bare:* abdomen of the male cylindrical, of the female obconical, clothed with short black hairs, a little longer than the chest; scales of the male white bordered with black: *legs tawny*, clothed with very short black hairs; *thighs green;* shanks beset with black bristles; *feet pitchy*, black towards the tips; trochanters of the male yellow, of the female tawny: *wings colourless;* wing-ribs tawny; veins black; *fourth longitudinal vein not as usual converging to the third after its curve but almost parallel to it;* poisers yellow. Length of the body 1½ line; of the wings 3 lines.

United States.

Dolichopus varius, Fem.

Æneo-viridis cyaneo varius, abdomine fasciis albidis ornato, antennis pedibusque fulvis tarsis nigris, alis cinereis costa maculisque quinque fuscis.

Brassy green, tinged with blue, beset with black bristles, adorned beneath with a whitish covering: eyes red; *feelers tawny; sixth joint black, feathered with moderately long hairs: abdomen* obconical, longer than the chest, *adorned with bands of whitish hue: legs dark tawny*, clothed with short black hairs; shanks beset with black bristles; *feet black: wings gray, brown beneath the fore border, adorned with four or five brown spots;* wing-ribs pitchy; veins black; poisers tawny. Length of the body 1¼ line; of the wings 3 lines.

United States.

Fam. MEGACEPHALI, *Meigen.*

Genus PIPUNCULUS, *Latr.*

Pipunculus lateralis, Mas.

Niger, canescens, abdominis lateribus cano maculatis, antennis pedibusque fulvis, femoribus serratis, alis limpidis.

Nearly allied to *P. flavipes*. *Black*, shining: *head and breast adorned with hoary bloom: feelers tawny: abdomen hoary at the base and with a row of irregular hoary spots along each side; tip tawny: legs tawny; thighs serrated beneath for half the length from the tips, the teeth black and very small;* tips of the feet pitchy; tips of the claws black: *wings colourless;* wing-ribs tawny; veins black, tawny at the base; poisers tawny. Length of the body 2 lines; of the wings 5 lines.

North America.

Fam. SYRPHICI, *Latr.*

Genus MICRODON, *Illiger.*

Microdon Trochilus, Fem.

Cyaneo-viride, purpureo aureoque varium, abdomine cupreo, ventris apice fulvo, antennis nigris, pedibus purpureo-cyaneis, alis subcinereis ad costam subfuscis.

Bright bluish green: head clothed above with black hairs and more thickly in front with pale yellow hairs: eyes red; all the facets very small: mouth pitchy; feelers black; bristle pitchy: chest and abdomen clothed with pale yellow hairs: *a purple spot at the base of each wing; scutcheon and hind-chest tinged with purple: disk of the chest golden green: abdomen bright coppery, golden towards the base which is bluish green; underside towards the tip tawny which hue is divided from the green by a ferruginous segment tinged with purple: legs purplish blue*, thickly clothed with short black hairs; *shanks and feet tawny towards the tips beneath;* claws and foot-cushions bright tawny; tips of the claws black: *wings slightly gray, pale brown along the fore border;* wing-ribs, veins, and poisers pitchy. Length of the body 5½ lines; of the wings 11 lines.

Mexico.

UBRISTES, n. g.

Microdonti similis. Caput thorace latius: antennæ longæ; articulus 1us longissimus, subcurvus; 2us brevissimus; 3us linearis, apice conicus, 1o paullo longior: tarsi lati; tibiæ posticæ pilosæ.

Allied to *Microdon*. *Male*. Head broader than the chest: feelers long; first joint very long, slightly curved; second very short; third linear, conical at the tip, a little longer than the first; fourth springing from near the base of the third: feet rather broad, especially the hind pair; hind-shanks very hairy: wing-veins like those of *Microdon*, but the middle cross-vein beneath the submarginal areolet is a mere stump.

Ubristes flavitibia, Mas, Plate 5, fig. 2.

Nigro-ænea, scutello piceo, abdominis apice fulvo, antennis rufis, pedibus piceis, tarsis fulvis, tibiis posticis flavis flavoque hirtis, alis cinereis basi et ad costam fuscis.

Body black, shining, clothed with black hairs; a white spot at the base of the feelers: face thinly clothed with white hairs, adorned with two white spots on each side: eyes black; fore part nearly flat, its facets a little larger than those elsewhere: mouth pitchy: feelers very dark red; first joint clothed above with very short black hairs: chest slightly bronzed; scutcheon pitchy; a purple tinge on the base of the hind-chest: abdomen nearly spindle-shaped, a little narrower and much longer than the chest; tip dark tawny: legs pitchy, thickly clothed with short black hairs; feet dark tawny; claws black, tawny towards the base; foot-cushions pale tawny; hind-shanks pale yellow, thickly clothed with bright yellow hairs: wings gray, dark brown at the base and along two-thirds of the fore border; wing-ribs pitchy; veins black: poisers pitchy, dark tawny towards the base. Length of the body 5 lines; of the wings 10 lines.

Brazil.

Genus CHRYSOTOXUM, *Meigen*.

Chrysotoxum antiquum, Mas.

Æneum, capite thoracis maculis quatuor scutello pectorisque maculis duabus flavis, abdomine purpureo-nigro fasciis duabus interruptis maculisque duabus fulvis ornato, ventre nigro maculis quatuor fulvis, antennis nigris basi rufis, pedibus fulvis, femoribus basi nigris, alis subcinereis ad costam fulvis.

Head bright yellow above, whitish and clothed with pale yellow hairs in front and beneath; a pitchy stripe between the feelers and the epistoma: eyes coppery red above, pitchy beneath where the facets are smallest: feelers black; first and second joints dark red, beset with very short black bristles: sixth joint tawny: *chest and breast brassy*, clothed with tawny hairs: *chest adorned with two yellow spots on each side; scutcheon yellow with a pitchy spot in the disk: a large yellow mark on each side of the breast: abdomen purplish black*, longer and broader than the chest, *adorned with two interrupted arched tawny bands and near to the tip with two very small tawny spots; underside black, shining, adorned with four large tawny spots: legs tawny; thighs black towards the base: wings slightly gray, dark tawny along the fore border*, paler in the disk where the two colours blend; wing-ribs and veins ferruginous, the latter pitchy towards the tips; poisers tawny. Length of the body 7 lines; of the wings 14 lines.

East Indies.

Chrysotoxum indicum, Mas.

Æneum, capite thoracisque vittis duabus, scutellique margine flavis, scutello pectore abdomineque fulvis huic fasciis quatuor nigris, antennis ferrugineis, apice piceis, pedibus fulvis, alis limpidis.

Head bright yellow, whitish and clothed with whitish hairs behind and beneath; a tawny stripe between the feelers and the epistoma, on approaching which it becomes pitchy: eyes pitchy; all the facets very small: feelers ferruginous, pitchy towards the tips: *chest and breast brassy: chest with a yellow stripe on each side; scutcheon tawny with a yellow hind border; breast partly tawny: abdomen tawny, yellow towards the base, pitchy at the tip, adorned with four arched black bands; the first and second narrow and entire, joined together by a short middle stripe, third and fourth*

shorter and broader, third interrupted, fourth blending with the pitchy hue at the tip; underside paler: *legs tawny: wings colourless;* wing-ribs, veins and poisers tawny. Length of the body 5 lines; of the wings 10 lines.

East Indies.

Chrysotoxum stipatum, Fem.

Nigrum, capite scutello thorace pectoreque vittis duabus abdominis fasciis tribus maculisque duabus viridi-flavis, abdominis ad apicem annulo ventrisque fasciis quatuor flavis, antennis nigris, pedibus fulvis, tibiis flavis, alis sublimpidis ad costam fulvis.

Black: head bright greenish yellow; crown black, with a large yellow spot on each side; a black stripe between the feelers and the epistoma: eyes pitchy; all the facets very small: sucker tawny: feelers black; sixth joint tawny: *chest adorned with an interrupted greenish yellow stripe on each side; scutcheon greenish yellow with a tawny disk; a short greenish yellow stripe on each side of the breast: abdomen* much broader and longer than the chest, *adorned with three broad interrupted greenish yellow bands, and with two somewhat triangular spots of the same colour resting on the hind borders of the third and fourth segments; fifth segment adorned with a nearly circular yellow spot which incloses a triangular black spot; underside with four yellow bands, the first and the second entire, the third and the fourth interrupted: legs bright pale tawny; shanks bright pale yellow with tawny tips; wings almost colourless; fore border adorned with a tawny stripe which becomes brown near the tip;* wing-ribs and veins tawny; poisers pale yellow. Length of the body 4½ lines; of the wings 10 lines.

Chrysotoxum græcum, Mas et Fem.

Flavum, thorace nigro quadrivittato, abdomine fasciis fulvis ornato, antennis nigris, pedibus fulvis, alis limpidis ad costam fulvis apice fuscis.

Head yellow, tawny in front, that of the female adorned with a scutcheon-shaped black mark on the crown communicating with a black spot at the base of the feelers, the latter spot sends out a branch to each eye; a black stripe between the feelers and the epistoma: eyes red: feelers black: sixth joint tawny: *chest black, adorned with two slender yellow middle*

stripes and with two broader and interrupted tawny stripes: breast black, with a tawny oblique band on each side: abdomen oval, longer and much broader than the chest, *adorned with three interrupted arched tawny bands; hind border of the third segment tawny; an angular tawny stripe on the hind border of the fourth segment; disk of the fifth segment yellow, including a reversed Y-shaped spot: legs tawny: wings colourless; the broad tawny stripe beneath the fore border becomes brown towards the tip;* wing-ribs and veins tawny, veins pitchy towards the tips; poisers tawny. Length of the body 5 lines; of the wings 11 lines.

Albania.

Genus CERATOPHYA, *Macquart.*

Ceratophya variegata, Fem., Plate 6, fig. 6.

Nigra, maculis aureo-pilosis ornata, scutello piceo, antennis rufis basi subtus nigris, pedibus fulvis, alis subcinereis ad costam fulvis fusco variis.

Black, clothed with golden hairs: eyes pitchy: feelers dark red; first and second joints black beneath: chest hairy here and there: *scutcheon pitchy: abdomen adorned with seven patches of golden hairs, three on each side and one at the tip;* first segment linear; all the following together spindle-shaped: *legs tawny: wings slightly gray; dark tawny and partly brown beneath the fore border;* wing-ribs tawny; veins black, tawny at the base; *cross-veins clouded with dark brown;* poisers yellow. Length of the body 6 lines; of the wings 10 lines.

New South Wales.

Genus PARAGUS, *Latr.*

Paragus maculatus, Fem.

Æneo-viridis, capite cupreo supra nigro, abdomine maculis duabus flavis duabusque fulvis ornato, antennis fulvis apice nigris, pedibus fulvis, tibiis nigro cinctis, alis limpidis.

Brassy green: head bright coppery, mostly black on the crown where the hoary bloom incloses two round spots; hind part adorned with a whitish covering, clothed with white hairs: eyes pitchy: mouth tawny: feelers tawny; tip of the third joint black: *abdomen* flat, much longer than

the chest, widening from the base till near the tip, *adorned with two yellow and two tawny spots, the yellow spots on the fore border of the second segment larger than the tawny spots, which are indistinct and join the fore border of the third segment: legs tawny; a black band on each hind-shank near the tip: wings colourless;* wing-ribs tawny; veins black, tawny at the base; brands pale brown; poisers tawny. Length of the body $2\frac{1}{4}$ lines; of the wings 4 lines.

Brazil.

Genus ASCIA, *Meigerle.*

Ascia striata, Mas.

Nigra, capite thoracis lateribus pectore scutellique margine postico flavis, abdomine vittis fulvis fasciisque flavis ornato, antennis fulvis, pedibus flavis posticis fusco vittatis, alis limpidis apice fuscis.

Head bright yellow, black about the eyelets; a small black shining spot above the base of the feelers: eyes pale red: mouth pale tawny: feelers tawny: *chest black; its sides and the breast mostly yellow; hind border of the scutcheon yellow: abdomen black*, clothed with black hairs; *first segment with one tawny stripe; each following segment with three tawny stripes; a short very oblique yellow band on each side of every segment: legs yellow; hind-thighs, hind-shanks and hind-feet adorned with two brown stripes*, and the like are very slightly indicated on the middle legs: *wings colourless with brown tips;* wing-ribs tawny; veins black, tawny at the base; brands black; poisers tawny. Length of the body $2\frac{1}{4}$ lines; of the wings $4\frac{1}{2}$ lines.

Brazil.

Genus BACCHA, *Fabricius.*

Baccha oblonga, Fem.

Flava, thorace vittis tribus æneis ornato, abdomine fulvo segmentorum marginibus posticis apiceque piceis, antennis fulvis, pedibus flavis, tarsis fulvis, femoribus tibiisque posticis fusco cinctis, alis limpidis.

Structure of *B. tabida*. *Yellow:* head black about the eyelets; a little black spot above the base of the feelers, which are tawny: eyes bright red: *chest* somewhat tawny about the base of the wings, *adorned with three*

broad coppery stripes which occupy most of the disk: abdomen tawny, yellowish on each side beyond the middle, pitchy towards the tip; hind borders of the segments pitchy: feet tawny; each hind-thigh and hind-shank adorned with a brown band, and the like is very slightly indicated on the middle legs: *wings colourless;* wing-ribs tawny; veins black, tawny at the base. Length of the body $4\frac{1}{2}$ lines; of the wings 9 lines.

Brazil.

Baccha crassa, Mas.

Nigra, capite pectoreque chalybeis, scutello thoracisque lateribus æneis, antennis pedibusque piceis, tarsis fulvo-cinctis, alis cinereis basi et ad costam fuscis.

Black: *head steel blue*, clothed above with black hairs, covered in front with white down: eyes red: mouth tawny: feelers pitchy: *chest very stout; scutcheon and sides of the chest brassy*, the latter clothed with tawny hairs: *breast steel-blue: abdomen much compressed at the base, widening thence to the tip*, about twice the length of the chest but not half its breadth in the widest part: *legs pitchy; trochanters and knees tawny; second and third joints of the feet tawny*, which colour is palest in the hind-feet; claws black; foot-cushions tawny: *wings dark gray, brownish at the base and beneath the fore border;* wing-ribs and veins black; poisers tawny. Length of the body 4 lines; of the wings 8 lines.

Brazil.

Baccha tenuis, Fem.

Cyanea, capite antico flavo, abdomine cyaneo apice purpureo fasciis quatuor fulvis ornato, antennis pedibusque fulvis, femoribus tibiisque posticis fusco-cinctis, alis limpidis.

Head bright blue above, pale yellow in front and beneath; a little black spot above the base of the feelers: eyes red: mouth and feelers tawny: *chest and breast metallic-blue; sides yellow; a broad coppery band between the wings: abdomen black*, shining, about thrice the length of the chest, *adorned with four tawny bands, linear and very slender for two-thirds of the length, purple and spindle-shaped from thence to the tip: legs pale tawny; hind-thighs and hind-shanks adorned with pale brown bands; hind-feet dark tawny, brownish towards the base: wings colourless;* wing-ribs tawny; veins

black, tawny at the base; poisers tawny. Length of the body $2\frac{3}{4}$ lines; of the wings $4\frac{1}{2}$ lines.

Brazil.

Baccha maculata, Mas.

Ænea, capite cyaneo, abdomine cupreo segmentorum marginibus anticis fulvis, antennis pedibusque fulvis, femoribus tibiisque posticis piceo cinctis, tarsis posticis piceis, alis fulvis fusco variis.

Structure of *B. tabida*. *Head metallic-blue:* eyes bright red: feelers tawny: *chest brassy; hind part bluish on each side: abdomen coppery; fore borders of the segments tawny: legs tawny; a pitchy band on each hind-thigh and hind-shank; hind-feet pitchy: wings tawny; two brown marks on the fore border; cross-veins clouded with brown;* wing-ribs tawny; veins black, tawny at the base; poisers tawny. Length of the body 5 lines; of the wings 8 lines.

East Indies.

AMATHIA, n. g.

Bacchæ affinis: femora subtus spinulosa: alæ vena submarginali undata.

Allied to *Baccha;* thighs armed beneath with little spines; submarginal vein and the two cross-veins inclosing the submarginal and first posterior areolet very much waved.

Amathia costalis, Mas.

Flava, thoracis disco abdomineque nigris, hujus fasciis fulvis, antennis fulvis, pedibus flavis, femoribus apice tarsisque fulvis, pedibus posticis fuscis, alis limpidis ad costam furcato-fuscis.

Head yellow; a forked pitchy spot above the base of the feelers; another pitchy spot in front of the feelers: eyes red: feelers dark tawny: chest and breast yellow: disk of the chest black: abdomen black with tawny bands: legs yellow: tips of the four anterior thighs tawny; hind-thighs and hind-shanks brown; feet tawny; hind-feet brown towards the tips: wings colourless; a brown stripe along the fore border sending forth a very

short band before the middle of its course; wing-ribs and veins black; poisers tawny. Length of the body 4 lines; of the wings 8 lines.

Brazil.

Genus EUMERUS, *Meigen*.

Eumerus albifrons, Mas.

Nigro-cyaneus, scutelli margine postico fulvo, abdomine fasciis tribus arcuatis canis ornato, antennis tarsisque fulvis, alis sublimpidis cinereo variis.

Bluish black: head adorned with a white covering and clothed with white hairs: eyes black; facets large in the fore part: feelers pitchy with a hoary bloom; sixth joint tawny at the base: chest and breast thinly clothed with tawny hairs; *hind border of the scutcheon tawny: abdomen* obconical, narrower and a little longer than the chest, *adorned with three very angular hoary bands*: legs clothed with hoary hairs; fore-shanks covered with a whitish bloom; *fore-feet and middle-feet tawny; hind-feet much widened towards the base, tawny beneath: wings nearly colourless; disks of the areolets beneath the fore border streaked with gray;* wing-ribs tawny; veins black, tawny at the base; poisers yellow. Length of the body $3\frac{1}{4}$ lines; of the wings $5\frac{1}{2}$ lines.

East Indies.

Eumerus argenteus, Fem.

Æneus, scutelli margine postico fulvo, abdomine nigro maculis duabus rufis argenteo micantibus ornato, antennis nigris, articulis 1o et 2o piceis apice ferrugineis, pedibus ferrugineis, femoribus æneis, alis cinereis ad costam subfuscis.

Brassy: head coppery, very thickly clothed with white hairs: crown clothed with brownish hairs: eyes red, clothed with short white hairs: feelers black; first and second joints pitchy with ferruginous tips: chest clothed with tawny or pale brown hairs; *hind border of the scutcheon tawny:* breast clothed with hoary hairs: *abdomen black*, slightly obconical, a little longer than the chest, *adorned on each side with two very large red spots which are covered with bright silvery lustre*, clothed with tawny hairs on each side of the base and at the *tip which is brassy: legs ferruginous*,

clothed with tawny hairs; *thighs brassy;* tips of the feet pitchy; claws tawny with black tips; foot-cushions tawny; hind-feet widened, somewhat pitchy towards the base: *wings gray, slightly brown beneath the fore border;* wing-ribs tawny; veins black, tawny at the base; poisers tawny. Length of the body 4 lines; of the wings 7 lines.

Cape.

Eumerus privernus, Mas.

Æneus, capite scutello thoracis lateribus pectorisque fasciis duabus flavis, thorace subvittato, abdomine cyaneo-nigro vitta interrupta fulva maculisque fulvis et ferrugineis ornato, antennis fulvis, pedibus flavis, femoribus posticis apice nigris, tibiis posticis fusco bifasciatis, tarsis posticis piceis, alis limpidis.

Head bright pale yellow; hind part and underside black, tinged with hoary, clothed with white hairs: eyes bright red, coppery above, where the facets are larger than those elsewhere: feelers bright tawny; sixth joint black, tawny at the base: *chest and breast brassy: chest indistinctly striped, its sides and the scutcheon yellow; a short yellow band on each side of the breast: abdomen bluish black, yellow at the base,* slightly spindle-shaped, much longer but not broader than the chest, *adorned with an interrupted tawny stripe and on each side with three tawny triangular spots; three indistinct ferruginous marks on each of the third and fourth segments: legs yellow; hind-thighs* stout, *black towards the tips; hind-shanks* curved; *with two indistinct brown bands; hind-feet pitchy: wings colourless;* wing-ribs tawny; veins black, tawny at the base; poisers yellow. Length of the body 3 lines; of the wings 6 lines.

United States.

Eumerus transiens, Fem.

Niger, thoracis lateribus scutello pectore abdomineque ferrugineis, antennis nigris, pedibus ferrugineis, femoribus nigris, tibiis nigro cinctis, alis cinereis fusco nebulosis.

Black: head thickly clothed in front with tawny hairs: eyes red: chest and breast clothed with tawny hairs: *scutcheon, breast, and sides of the chest ferruginous; abdomen ferruginous,* obconical, much longer than

the chest, shining beneath, *pitchy here and there* and clothed with short tawny hairs above: *legs pale ferruginous*, clothed with tawny hairs; *trochanters and thighs mostly black; a black band on each shank: wings gray; veins clouded with brown;* wing-ribs pitchy; veins black; the stump of a slightly curved vein proceeding from the upper side of the second submarginal areolet; poisers tawny. Length of the body 5 lines; of the wings 12 lines.

New South Wales.

Genus XYLOTA, *Meigen.*

Xylota æqualis, Mas.

Ænea, capite scutelloque fulvis, abdomine nigro fasciis sex fulvis ornato, segmentorum marginibus posticis cyaneis, antennis nigris, pedibus fulvis, alis limpidis.

Head pale buff, clothed with pale yellow hairs; crown clothed with black hairs; a pitchy stripe along the face, which has a bare shining ferruginous knob near the epistoma: mouth pitchy: feelers black; third joint pitchy at the base: eyes bronzed; facets larger on the crown than elsewhere: *chest and breast hoary*, thickly clothed with pale yellow hairs; *chest with a brassy tinge; scutcheon tawny*, clothed with black hairs: *abdomen black*, obconical, *tinged with blue on the hind borders of the segments*, much longer than the chest, clothed with black hairs, *adorned with six bands; first, second, fourth and sixth bands tawny, fourth indistinct, third and fifth whitish: legs tawny*, clothed with short tawny hairs; thighs towards the base darker and clothed with darker hairs; claws and foot-cushions tawny; tips of the claws black; *hind-legs dark tawny or pitchy, their thighs, shanks, and the first joints of the feet thickly fringed with black hairs: wings colourless;* wing-ribs, veins, and poisers tawny. Length of the body 6 lines; of the wings 12 lines.

East Indies.

Genus MILESIA, *Latr.*

Milesia laconica, Fem.

Nigra, thorace maculis et fasciis flavis vittisque quinque cinereis ornato, abdomine rufo-fusco maculis flavis et fasciis cyaneo-fulvis albidisque ornato, pedibus piceis, alis limpidis ad costam fuscis.

Black: head mostly clothed with short yellow hairs and adorned with a whitish covering, which occupies the whole of the face excepting a black stripe along the middle: eyes bronzed; all the facets very small: mouth pitchy: feelers pitchy at the base: *chest adorned with five indistinct gray stripes; a whitish mark on each shoulder; two obconical yellow spots on the back, behind them and in front of the wing-ribs there is an interrupted yellow band; an entire yellow band in front of the scutcheon which is pitchy;* a tuft of yellow hairs on each side of the latter band: *abdomen* obconical, thinly clothed with very short tawny hairs, longer than the chest, *reddish brown, black at the base, where there are two oblique spots of bright yellow hairs; beyond these is an interrupted tawny band rounded on each side and adorned with blue lustre; then follow two interrupted whitish bands* clothed with bright short yellow hairs; *hind borders of the segments tawny: legs pitchy,* clothed with very short tawny hairs; foot-cushions and tips of the fore-shanks tawny; claws tawny with black tips: *wings colourless; a brown stripe interrupted by more or less pale streaks along the whole length of the fore border;* wing-ribs pitchy; veins black; poisers pale yellow. Length of the body 6½ lines; of the wings 13 lines.

Brazil.

DEINECHES, n. g.

Milesia et *Rhingia* affinis: epistoma conicum: os capite multo longior: tibiæ subcurvatæ; femora postica crassa.

Connects *Milesia* and *Rhingia*. Epistoma produced into a cone: mouth much longer than the head: shanks slightly curved: hind-thighs thick: wing-veins like those of *Rhingia*, but the cross-veins along the hind border towards the tip of the wing form an almost uninterrupted line, and the cross-vein which bounds the inner side of the first posterior areolet is much curved and very oblique.

Deineches nigro-fulva, Plate 6, fig. 7.

Nigra, capite thoracis lateribus et scutello abdominis maculis duabus pedibusque fulvis, antennis ferrugineis, alis subcinereis ad costam subfulvis, apice fuscis.

Black: head tawny, clothed with tawny hairs, pitchy on the crown, with a hoary tinge and clothed with hoary hairs beneath; sides of the epistoma black, shining: eyes black; all the facets very small: mouth black: feelers pale ferruginous; sixth joint black, ferruginous at the base: chest tinged with metallic colour, clothed with tawny hairs; sides and the scutcheon tawny; breast adorned with a hoary covering, clothed with hoary hairs: abdomen barrel-shaped, very finely and closely punctured, a little longer than the chest, clothed with short black hairs; a large tawny spot clothed with tawny hairs on each side of the base: legs tawny, clothed with short tawny hairs; tips of the claws black: wings very pale gray, with a tawny tinge at the base and along the fore border; veins in the disk and at the tip clouded with brown; wing-ribs and veins ferruginous; veins mostly black towards the tips; poisers tawny. Length of the body 8 lines; of the wings 16 lines.

New South Wales.

Genus CHRYSOGASTER, *Meigen*.

Chrysogaster recedens, Mas.

Æneo-viridis, capite nigro, antennis piceis, pedibus nigro-æneis, genubus ferrugineis, alis subcinereis.

Brassy green: head black, thinly clothed with hoary hairs, having a few black hairs on the crown: eyes pitchy; all the facets very small: mouth and feelers pitchy: chest clothed with tawny hairs: breast clothed with hoary hairs: abdomen somewhat elliptical: *legs brassy black*, clothed with tawny down, *knees ferruginous;* foot-cushions dark tawny: *wings slightly gray;* wing-ribs and poisers ferruginous; veins black. Length of the body 2¼ lines; of the wings 4 lines.

United States.

Genus SYRPHUS, *Fabr.*

Syrphus felix, Mas et Fem.

Æneus, capite scutelloque flavis, thoracis lateribus fulvis, abdomine nigro fasciis fulvis una interrupta duabusque biarcuatis ornato, antennis ferrugineis, pedibus fulvis, alis subfulvis.

Head yellow, paler and clothed with whitish hairs beneath: eyes pitchy; all the facets very small: mouth pitchy: feelers ferruginous: *chest brassy*, clothed with tawny hairs; *sides of the chest tawny; scutcheon yellow: abdomen black*, nearly elliptical, longer and a little broader than the chest, *adorned with three very broad tawny bands; the first interrupted by a broad interval, on approaching which it has a conical form on each side; second very convex on each side of the hind border and deeply indented in the middle; hind border of the third forming two semicircles and much indented between them; tip tawny with a black disk: legs tawny;* tips of the claws black: *wings slightly tawny;* wing-ribs, veins, and poisers tawny; veins black towards the tips; brands pale brown. Length of the body $3\frac{1}{2}$—4 lines; of the wings 7—8 lines.

Canaries.

Syrphus dentatus, Mas.

Æneo-viridis, capite scutelloque flavis, thoracis lateribus fulvis, abdomine nigro fasciis fulvis una interrupta duabusque incisis ornato, antennis piceis subtus fulvis, pedibus fulvis, alis limpidis.

Head yellow, whitish and clothed with white hairs behind: *a black stripe extending from the epistoma along half the length of the face*: eyes dark red: mouth black with a tawny tip: feelers pitchy above, tawny beneath; sixth joint black, tawny towards the base: *chest brassy-green*, clothed with tawny hairs; *sides tawny; scutcheon yellow: abdomen black*, elliptical, a little longer and narrower than the chest, *adorned with three very broad tawny bands; the first interrupted by a broad interval which divides it into two nearly triangular spots; the hind border of the second not reaching the sides of the abdomen, and having a notch in the middle; third also with a semicircular colourless notch in the middle, and with a less conspicuous tawny stripe near the tip: legs tawny;* feet pitchy towards the

tips; tips of the claws black: *wings colourless;* wing-ribs tawny; veins black, tawny towards the base and along the fore border; poisers yellow. Length of the body 3 lines; of the wings 6 lines.

Cape.

Syrphus mundus, Mas.

Æneus, capite scutelloque flavis, thoracis lateribus fulvis, pectore chalybeo, abdomine nigro fasciis quinque flavis ornato, antennis ferrugineis, pedibus fulvis, alis subfuscis apice margineque postico limpidis.

Head pale yellow, whitish and clothed with white hairs beneath and behind: eyes coppery; all the facets very small: mouth tawny: feelers pale ferruginous, darker at the base: *chest brassy*, clothed with tawny hairs; sides tawny; *scutcheon yellow: breast chalybeous*, clothed with hoary hairs: *abdomen* obconical, *black*, much longer than the chest, clothed on each side of the base with a tuft of tawny hairs, *adorned with three broad and two slender yellow bands, fore border and hind border of the first concave in the middle, second slightly concave on the hind border and having a slight angle in advance on the fore border; third straight; fourth and fifth tawny, very small: legs pale tawny;* tips of the claws black: *wings brownish, colourless at the tips and along the hind borders;* wing-ribs and veins tawny, the latter black towards the tips: poisers tawny. Length of the body 5 lines; of the wings 11 lines.

East Indies.

Syrphus tricolor, Mas.

Nigra, capite scutelloque flavis, abdomine rufo cincto, antennis piceis, pedibus nigris, alis subcinereis fascia latissima abbreviata fusca ornatis.

Black: head yellow, whitish and clothed with whitish hairs behind; *face* thinly clothed with black hairs, *having a black stripe along half the length to the epistoma:* eyes pitchy, thickly clothed with very short black hairs: feelers pitchy: chest clothed with tawny hairs; *scutcheon yellow: abdomen* nearly elliptical, a little longer and broader than the chest, *adorned with a very broad red band which occupies nearly half the length: legs black;* foot-cushions pitchy: *wings pale gray, with a very large brown spot which extends from the base to beyond the middle and occupies the whole*

breadth excepting the hind border; wing-ribs pitchy; veins black; poisers tawny. Length of the body 4 lines; of the wings 9 lines.

Cape.

Syrphus Cranapes, Mas et Fem.

Chalybeus, capite flavo, thoracis lateribus scutelloque fulvis, abdomine piceo, ventre fasciisque quatuor flavis, fascia 1*a interrupta,* 2*a* 3*a-que integris,* 4*a apicali ad discum picea, antennis fulvis supra piceis, pedibus flavis posticis fulvis, alis limpidis.*

Allied to *S. Ribesii*. *Head yellow*, paler in front, whitish and clothed with pale yellow hairs behind; *a brassy spot about the eyelets joins by an indistinct stripe a triangular chalybeous spot above the base of the feelers*, this spot is very small in the male; crown thinly clothed with black hairs: eyes red: feelers tawny, pitchy above; sixth joint tawny: *chest and breast steel blue*, clothed with tawny hairs; *scutcheon and sides of the chest tawny:* breast tinged with gray: *abdomen* elliptical, *pitchy*, much longer and broader than the chest, *tinged with steel blue, adorned with four very broad yellow bands, the first interrupted and angular; second and third straight and entire; fourth at the tip, its disk pitchy; underside yellow: legs yellow;* tips of the feet pitchy; *hind legs except the base of the thighs tawny: wings colourless;* wing-ribs tawny; veins black, tawny at the base; brands brown. Length of the body $5\frac{1}{2}$ lines; of the wings 12 lines.

East Indies.

Syrphus Orsua.

Chalybeus, thorace antico scutelloque fulvis, abdomine ferrugineo ad discum cyaneo-piceo, fasciis flavis una interrupta duabus integris duabusque parvis apicalibus ornato, pedibus fulvis, alis limpidis.

Head wanting: *chest and breast steel blue:* chest clothed with tawny hairs; *front and scutcheon tawny:* breast tinged with hoary, clothed with whitish hairs: *abdomen dark ferruginous*, nearly elliptical, longer but hardly broader than the chest, *partly pitchy with a bluish tinge, adorned with five yellow bands, the first interrupted, the second and the third entire, very slightly arched, the fourth and the fifth very small at the tip: legs tawny;* feet pitchy towards the tips; hind-legs darker than the other pair: *wings colourless;* wing-ribs tawny; veins black, tawny at the base; brands

brown; poisers tawny. Length of the body 4½ lines; of the wings 11 lines.

East Indies.

Syrphus Opimius, Mas.

Chalybeus, capite flavo, thoracis lateribus scutelloque fulvis, abdomine piceo fasciis flavis tribus latissimis interruptis duabusque angustis integris ornato, segmentorum marginibus posticis apiceque cyaneis, antennis pedibusque fulvis piceo variis, alis limpidis.

Head yellow, clothed with black hairs, paler and clothed with pale yellow hairs beneath: eyes red, clothed with short pale hairs: feelers tawny, pitchy above; sixth joint tawny: *chest and breast steel blue:* chest thickly clothed with tawny hairs; *sides and scutcheon tawny:* breast tinged with hoary, clothed with hoary hairs: *abdomen pitchy*, obconical, much longer but not broader than the chest, *adorned with three very broad interrupted and two very slender entire yellow bands, the second and the third arched, the fourth and the fifth at the tip; hind borders of the segments and tip blue: legs tawny; feet pitchy, tawny at the base; thighs towards the base, hind-thighs and hind-shanks more or less pitchy: wings colourless;* wing-ribs tawny; veins black, tawny at the base; brands brown; poisers tawny. Length of the body 5 lines; of the wings 10 lines.

East Indies.

Syrphus Caldus, Mas.

Æneus, capite pectoreque cyaneis, abdomine nigro fasciis fulvis tribus interruptis duabusque incisis ornato, segmentorum marginibus posticis æneis, antennis pedibusque piceis, alis cinereis costa fuscis disco subfuscis.

Allied to *S. balteatus* and *S. alternans*. *Head metallic blue*, thinly clothed above with black hairs, white and clothed with white hairs beneath; a hoary stripe on each side of the face; covering of the crown tawny: eyes bronzed: feelers pitchy: *chest brassy*, clothed with tawny hairs; a tawny covering on each side: *breast metallic blue*, thinly clothed with hoary hairs: *abdomen black*, linear, a little narrower and very much longer than the chest, clothed on each side with very short black hairs, and

near the base with longer pale tawny hairs, *adorned with five tawny bands; the first on the first segment, interrupted; the second and the third on the second segment, the second interrupted, hind border of the third concave and notched; the fourth and fifth on the third segment, hind border of the fourth concave, fifth arched and interrupted; hind borders of the segments brassy: legs pitchy, partly tawny;* feet clothed beneath with tawny down; claws tawny with black tips: *wings gray, dark brown along the fore border, brownish in the disk;* wing-ribs pitchy; veins black; poisers yellow. Length of the body 4½ lines; of the wings 8 lines.

Brazil.

Syrphus collatus, Mas.

Viridis, capite flavo, scutelli margine postico fulvo, abdomine cyaneo-piceo maculis octo flavis ornato, antennis pedibusque piceis, femoribus apice tibiisque basi fulvis, alis limpidis.

Head yellow, thinly clothed with black hairs, *steel blue* and most thickly clothed with black hairs *above the feelers*, tinged with whitish colour and clothed with pale yellow hairs behind: eyes dark red: feelers pitchy: *chest and breast metallic green:* chest clothed with tawny hairs; *scutcheon pitchy, tinged with green; hind border tawny:* breast with a hoary covering and clothed with hoary hairs: *abdomen pitchy*, spindle-shaped, much longer but not broader than the chest, *shining with steel blue lustre, adorned with four pairs of yellow spots, the first pair triangular, the second and third larger, conical towards each other, the fourth very small, near the tip: legs pitchy; thighs towards the tips and shanks towards the base tawny: wings colourless;* wing-ribs tawny; veins black, tawny at the base; poisers tawny. Length of the body 4 lines; of the wings 8 lines.

Van Diemen's Land.

Syrphus expositus, Fem.

Æneo-viridis, abdomine cyaneo-piceo fasciis duabus latis interruptis flavis ornato, antennis ferrugineis, pedibus piceis, tibiis fulvis, alis limpidis.

Brassy green: crown blue; face with a slight tawny covering, thinly clothed with black hairs; a black shining tubercle near the epistoma: eyes red: feelers ferruginous: chest clothed with tawny hairs: breast tinged

with hoary, clothed with hoary hairs: *abdomen pitchy*, obconical, *shining with blue lustre*, a little broader and much longer than the chest, *adorned with two broad interrupted yellow bands, which on each side of the interruption are angular on the fore border and rounded on the hind border: legs pitchy; shanks tawny; hind-shanks pitchy towards the tips: wings colourless;* wing-ribs tawny; veins black, tawny at the base and along the fore border; poisers tawny. Length of the body 4 lines; of the wings 9 lines.

Van Diemen's Land.

Syrphus Ambustus, Mas.

Æneo-viridis, capite cyaneo, abdomine nigro maculis sex cyaneo-fulvis ornato segmentorum lateribus marginibusque posticis æneo-viridibus, antennis piceis subtus ferrugineis, pedibus nigris, alis subcinereis.

Head steel blue, with a dull pale tawny tinge on each side, clothed with black hairs; hind part and underside tinged with hoary and clothed with hoary hairs; *peristoma bright tawny:* eyes brassy red; facets on the fore-crown larger than elsewhere: feelers pitchy, ferruginous beneath: *chest and breast brassy green:* chest clothed with tawny hairs; *scutcheon ferruginous*, clothed with black hairs: breast tinged with hoary, clothed with hoary hairs: *abdomen black*, obconical, much longer but not broader than the chest, *brassy green on the sides and hind borders of the segments, adorned with three pair of tawny spots which shine with blue lustre; first pair very narrow; second and third pair larger: legs black*, thinly clothed with pale hairs; *knees ferruginous;* feet clothed beneath with tawny down: *wings slightly gray;* wing-ribs tawny; veins black, tawny towards the base; brands pale brown; poisers tawny. Length of the body 4 lines; of the wings 8 lines.

New South Wales.

Syrphus Pedius, Mas.

Æneo-viridis, abdomine nigro maculis sex fulvis ornato, apice æneo, antennis ferrugineis, pedibus fulvis, alis subfulvis.

Metallic green: face mostly adorned with a pale tawny covering: eyes red: sucker and feelers ferruginous: chest clothed with tawny hairs: *abdomen black*, much longer but not broader than the chest, slightly widening

from the base till near *the tip which is brassy*, fringed with pale tawny hairs, *adorned with three pair of large oblong tawny spots : legs pale tawny : wings tinged with pale tawny ;* wing-ribs tawny ; veins black, tawny towards the base and along the fore border ; poisers tawny. Length of the body 3 lines ; of the wings 6 lines.

East Indies.

Syrphus Cothonea, Fem.

Cyaneus, abdomine cyaneo-piceo maculis octo fulvis ornato, antennis ferrugineis articulo 3o supra piceo, pedibus fulvis, alis limpidis.

Deep blue, shining : head, excepting the crown and the disk of the face, with a hoary covering : eyes red : feelers ferruginous : third joint pitchy above : breast tinged with hoary : *abdomen pitchy with blue lustre*, slightly increasing in breadth from the base to near the tip, much longer and a little broader than the chest, *adorned with four pair of tawny spots, second and third pair somewhat triangular, larger than the first, fourth pair much smaller than the third : legs tawny : wings colourless ;* wing-ribs tawny ; veins black, tawny towards the base and along the fore border ; poisers tawny. Length of the body 3 lines ; of the wings 7 lines.

East Indies.

Syrphus dimensus, Mas.

Æneus, capite thoracis lateribus scutelloque flavis, abdomine fulvo fasciis nigris æneisque ornato, antennis fulvis articulo 3o supra piceo, pedibus fulvis, femoribus tibiisque posticis fusco cinctis, alis limpidis.

Head pale yellow ; a bronze mark above the base of the feelers, whence a black stripe proceeds to the epistoma ; hind-head black, tinged with hoary, clothed with white hairs : eyes bright red : feelers tawny ; a pitchy stripe on the third joint : *chest and breast brassy ; sides and scutcheon yellow : abdomen bright tawny*, obconical, much longer but not broader than the chest, *adorned above with four black bands which include bronze bands, the latter are on the hind borders of the segments ; the fourth segment has a black middle stripe, on each side of which the band forms two very long and acute angles ; the fifth is black and includes two pair of tawny spots, the side pair large, the middle pair small : legs yellow ; feet tawny ; a brown*

band on each hind-thigh, and three brown bands on each hind-shank : wings colourless ; wing-ribs and veins tawny, the latter black towards the tips ; poisers yellow. Length of the body $2\frac{3}{4}$ lines ; of the wings $5\frac{1}{2}$ lines.

United States.

Syrphus Corbis, Mas.

Æneo-viridis, capite flavo, thoracis lateribus scutelloque fulvis, pectore flavo vario, abdomine ferrugineo basi fulvo fasciis nigris apice piceo, antennis pedibusque fulvis, femoribus tibiisque posticis fusco cinctis, alis sublimpidis,

Head bright pale yellow ; hind part and underside black, tinged with hoary, clothed with white hairs : eyes bright red ; facets on the crown larger than those elsewhere : mouth ferruginous : feelers bright tawny ; sixth joint black, tawny at the base : *chest and breast brassy-green : chest* clothed with tawny hairs, *adorned with four indistinct pale ferruginous stripes which unite in front of the scutcheon ; sides and scutcheon tawny : breast* tinged with hoary, *adorned on each side with a short yellow band and with two yellow spots : abdomen* nearly elliptical, longer and a little broader than the chest, *ferruginous, tawny towards the base where it has two black bands, pitchy towards the tip : legs tawny ;* feet darker ; *a pale brown band near the tip of each hind-thigh, and another near the base of each hind-shank : wings nearly colourless ;* wing-ribs tawny ; veins black, tawny at the base ; poisers tawny. Length of the body $2\frac{1}{2}$ lines ; of the wings 5 lines.

United States.

Syrphus Gurges, Mas.

Nigro-æneus, capite flavo, thoracis lateribus scutelloque fulvis, pectore flavo vario, abdominis fasciis fulvis nigro variis, antennis pedibusque fulvis, femoribus posticis apice nigro cinctis tibiis posticis nigris, alis limpidis.

Head bright pale yellow, black behind and beneath : eyes nearly black ; facets rather large on the fore part of the crown : sucker pitchy with a tawny tip : feelers pale bright tawny ; sixth joint black : *chest and breast brassy black ; sides of the chest and hind border of the scutcheon tawny :*

breast adorned on each side with a yellow spot and a short yellow band: abdomen bronze-black, spindle-shaped, much longer but not broader than the chest; *an interrupted narrow tawny band on the second segment; the third segment has a broad tawny band which is interrupted by two irregular and very slender black stripes in the middle, and by a very long forked black mark on each side; the fourth segment is like the third, but the forked marks attain its fore border; the fifth segment has two pair of tawny marks, the side pair very small, the middle pair very large; sixth segment partly tawny: legs tawny; a broad black band near the tip of each hind-thigh; hind-shanks black, tawny at the base: wings colourless;* wing-ribs tawny; veins black, tawny towards the base; brands pale brown; poisers yellow. Length of the body 2¼ lines; of the wings 4 lines.

United States.

Syrphus coalescens, Mas et Fem.

Nigro-æneus, capite pectorisque maculis flavis, thoracis lateribus scutelloque fulvis, abdomine nigro fulvo vario, antennis pedibusque fulvis, alis limpidis.

Male. Head black, bright pale yellow above, tinged with hoary and clothed with white hairs behind and beneath; face very prominent between the feelers and the epistoma: eyes red; facets on the fore part of the crown much larger than those elsewhere: feelers bright pale tawny; sixth joint black, tawny at the base: *chest and breast brassy-black; scutcheon and sides of the chest tawny; a short yellow band and a yellow spot on each side of the breast: abdomen black*, nearly spindle-shaped, much longer and a little broader than the chest; *first segment yellow at the base; a narrow tawny interrupted band on the second segment; third and fourth segments tawny, with the exception of a black band along the hind border, of a black stripe reaching from the hind border nearly to the fore border on each side, and of two black triangles in the disk; a tawny stripe in the middle forms the base to each of these triangles which are open to the hind borders; a tawny spot on each side of the fifth segment; tip of the sixth segment ferruginous: legs tawny;* hind-legs darker: *wings colourless;* wing-ribs tawny; veins black, tawny at the base; poisers tawny.

Fem. A broad black stripe on the crown, and a broad tawny stripe between the feelers and the epistoma: *legs yellow; hind-legs pitchy; hind-thighs yellow with a black band at the tip; hind-shanks tawny at the*

base : the black triangles in the disk of the abdomen much smaller than those of the male.

Length of the body 2½ lines; of the wings 5 lines.

Var. β. Black colour in the third and fourth segments much more prevalent.

United States.

Syrphus interrogans, Fem.

Æneus, capite antico thoracis lateribus scutelloque fulvis, abdomine nigro fasciis fulvis ornato apice æneo, antennis pedibusque fulvis, femoribus tibiisque posticis piceo cinctis, alis sublimpidis.

Head metallic green, purple on the crown, tawny in front and on the sides above the feelers, tinged with hoary, and clothed with white hairs behind and beneath : *chest and breast bronzed ; sides of the chest and hind border of the scutcheon tawny ; a short yellow band on each side of the breast : abdomen black,* nearly spindle-shaped, much longer but not broader than the chest, *adorned with four irregular tawny bands, the first at the base ; hind border of the second forming four curves, its disk adorned with four P-shaped black marks ; third like the second, but its hind part is still more enlarged ; fourth small, interrupted in the middle ; tip bronzed, hind borders of its segments tawny : legs tawny ;* feet darker ; *a pitchy band near the tip of each hind-thigh ; two indistinct pitchy bands on each hind-shank ; hind-feet pitchy : wings nearly colourless ;* wing-ribs tawny ; veins black, tawny at the base ; poisers tawny. Length of the body 2½ lines ; of the wings 5 lines.

North America.

Syrphus Barbula, Fem.

Æneo-viridis, abdomine fusco suturis nigris, pedibus fulvis posticis piceis, alis subcinereis.

Brassy green : head bluish green, brassy on the crown ; *a pale yellow stripe widening in front along each side of the face ;* hind-head tinged with gray, clothed with hoary hairs : sides of the chest and hind-border of the scutcheon somewhat pitchy ; *a yellow band on each side of the breast : abdomen brown,* spindle-shaped, *with a slight brassy tinge,* much longer than the chest, sometimes bronzed with pitchy sides ; *sutures of the segments*

black : legs tawny ; thighs and hind-shanks pitchy with tawny tips ; hind-feet pitchy at the base and at the tips : wings slightly gray ; wing-ribs tawny ; veins black, tawny at the base ; poisers tawny. Length of the body $2\frac{1}{2}$ lines ; of the wings 5 lines.

Brazil.

Syrphus Quintius.

Æneus, flavo varius, abdomine fulvo fasciis maculisque nigris ornato, antennis pedibusque fulvis, alis limpidis.

Head black : a yellow stripe on each side of the head widening towards the front which is all yellow ; hind part tinged with gray, clothed with hoary hairs : eyes red : feelers tawny : *chest and breast brassy ; a yellow stripe on each side of the chest ; scutcheon yellow ; a yellow band on each side of the breast : abdomen tawny,* elliptical, longer and much broader than the chest, *black at the base and at the tip, adorned with black bands on the hind borders of the segments ; a pair of black dots on each of the third and fourth segments, and a single one on the fifth segment ;* these dots vary in size, and when much developed are triangular, and are connected by little black stripes, with the borders of the segments in front and behind them ; sides of the segments sometimes mostly black : *legs tawny ;* tips of the feet black : *wings colourless ;* wing-ribs tawny ; veins black, tawny at the base and along the fore borders ; poisers tawny. Length of the body $2\frac{1}{2}$ lines ; of the wings 5 lines.

North America.

Syrphus Portius, Mas.

Æneo-viridis, thorace maculis flavis ornato, abdomine fulvo vario, pedibus flavis picco nigroque variis, alis limpidis.

Head wanting : *chest and breast brassy green : a yellow spot on each side and in front of the chest, and a yellow band on each side of the breast : abdomen brassy,* nearly linear, much longer than the chest ; *a narrow tawny spot adorns each side of every segment, and extends from the fore border nearly to the hind border ; two more indistinct tawny marks in each of the disks of the second and third segments : legs yellow ; four anterior-thighs partly pitchy ; hind-thighs black, yellow at the base and at the tips ; feet and hind-shanks pitchy : wings colourless ;* wing-ribs dark tawny ; veins black,

dark tawny at the base and along the fore border; brands pale brown; poisers tawny. Length of the body 2¾ lines; of the wings 5 lines.

Brazil.

Syrphus Pacilus, Fem.

Æneo-viridis, capite aureo, abdomine nigro maculis octo fulvis ornato apice æneo, antennis pedibusque fulvis, pedibus posticis piceis, alis limpidis.

Head gold colour, with a bronze shining stripe between the feelers and the epistoma, which is prominent: eyes red: feelers tawny: *chest and breast brassy green: abdomen black*, nearly linear, *brassy* and obconical *towards the tip*, very much longer than the chest, *adorned with four pairs of tawny spots which successively decrease in size: legs tawny*, darker about the middle of the joints; *hind-legs mostly pitchy: wings colourless;* wing-ribs tawny; veins black, tawny at the base and along the fore border; brands dark tawny; poisers yellow. Length of the body 4 lines; of the wings 8 lines.

North America.

Syrphus Vatia, Mas.

Cyaneo-viridis, capite supra flavo, thoracis lateribus scutelloque fulvis, abdomine rufo-fulvo fasciis duabus nigris duabusque piceis et nonnunquam maculis nigris ornato, antennis luteis, pedibus fulvis tibiis posticis apice tarsisque posticis piceis, alis limpidis.

Head black, bright yellow above, adorned with a tawny covering and clothed with hoary hairs beneath: eyes red: mouth black with a tawny tip: feelers luteous; sixth joint black, tawny at the base: *chest and breast bluish green: chest adorned with a ferruginous covering, which forms two bands; sides and scutcheon tawny: abdomen tawny*, nearly linear, much longer than the chest, *adorned with four bands; the first and the second black on the borders of the first segment; third and fourth pitchy on the hind borders of the second and third segments, which when darkest are each adorned with a pair of black spots; a single black spot on the fourth segment; disks of the third and the fourth segments reddish: legs tawny; hind-feet and tips of hind-shanks pitchy: wings colourless;* wing-ribs

tawny; veins black, tawny at the base; poisers tawny. Length of the body $2\frac{3}{4}$ lines; of the wings $5\frac{1}{2}$ lines.

Brazil.

Syrphus Lænas, Mas.

Niger, capite antico flavo, thorace vittis ferrugineis ornato, abdomine nigro-æneo lateribus ferrugineis, antennis pedibusque fulvis, femoribus nigris, tibiis anterioribus tarsisque posticis piceo cinctis, tibiis posticis piceis, alis cinereis ad costam subfuscis.

Black: head bright yellow in front, adorned with a metallic colour about the eyelets; hind part with a hoary covering, clothed with hoary hairs: eyes red; facets on the fore part of the crown rather larger than those elsewhere: sucker pitchy: feelers tawny; sixth joint black: *chest and breast brassy green; chest adorned with ferruginous stripes; a yellow spot on each side of the breast: abdomen* spindle-shaped, *bronze-black*, very much longer than the chest; *sides ferruginous: legs tawny; thighs black; hind-shanks pitchy; a pitchy band on each of the four anterior-shanks; hind-feet pitchy at the base and at the tips: wings gray, pale brown along the fore border;* wing-ribs pitchy; veins black, pitchy at the base; brands brown: poisers tawny. Length of the body $2\frac{3}{4}$ lines; of the wings 5 lines.

Brazil.

Syrphus Stolo, Mas.

Niger, capite antico flavo, scutello piceo, abdominis lateribus fulvis, antennis piceis, pedibus piceo-fulvis posticis nigris, alis nigro-cinereis.

Head yellow, hind part tinged with gray, clothed with hoary hairs; *crown and peristoma black;* crown thickly clothed with short black hairs: eyes red, slightly bronzed: feelers pitchy: *chest and breast black, tawny about the base of the wings*, clothed with black hairs: breast tinged with gray: *scutcheon pitchy: abdomen black*, narrower and much longer than the chest, *dark tawny along each side*, thinly clothed with short black hairs, *adorned with a tuft of tawny hairs on each side of the base: legs tawny, mostly pitchy above; hind-legs black; hind-feet long, tawny towards the base: wings blackish, gray towards the tips and along the hind border;*

wing-ribs and veins black; poisers tawny. Length of the body 3½ lines; of the wings 7 lines.

Brazil.

EPISTROPHE, n. g.

Facies antice et postice convexa, medio depressa: antennis articuli 1us et 2us longitudine æquales; 3us latus, 2o duplo longior; 4us, 5us, et 6us 3o conjunctim vix longiores; 6us validus, subsetaceus.

Allied to *Syrphus* and to *Pelecocera*. Face depressed across the middle, convex in front and behind: first and second joints of the feelers of equal length; third broad, about twice the length of the second, not so widened as that of *Pelecocera* and more conical at the tip; fourth, fifth, and sixth forming a stout slightly setaceous and indistinctly three-jointed bristle, which is very little longer than the third.

Epistrophe conjungens, Mas, Plate 6, fig. 5.

Ænea, capite flavo, thoracis lateribus scutelloque fulvis, abdomine nigro fasciis tribus latissimis duabusque angustis flavis ornato, antennis nigris, pedibus fulvis, femoribus basi nigris, tarsis posticis piceis, alis subcinereis basi et ad costam fulvis.

Head yellow, clothed with short yellow hairs, covered with hoary down and clothed with white hairs beneath: a pitchy heart-shaped mark clothed with black hairs above the base of the feelers; a tawny stripe between the feelers and the epistoma: eyes red; all the facets very small: sucker pitchy: feelers black; first and second joints clothed with short black hairs: chest bronzed, clothed with tawny hairs, which are very thick on the tawny sides and scutcheon: breast bluish-green, clothed with pale hairs: abdomen black, slightly spindle-shaped, clothed with short black hairs, and towards the base with longer tawny hairs, much longer but not broader than the chest, adorned with three very broad tawny bands, and at the tip with two slender tawny bands; first stripe interrupted: legs tawny, clothed with very short black and yellow hairs; feet and hind-shanks darker; thighs, especially the hind pair, black towards the base; hind-feet pitchy: wings pale gray, tinged with tawny at the base and along the

fore border; wing-ribs tawny; veins black, tawny at the base; poisers pale tawny. Length of the body 5½ lines; of the wings 12 lines.

Bolton. United States.

Genus MERODON, *Latreille.*

Merodon græcus, Fem.

Æneo-viridis, capite flavo, thorace fulvo quadrivittato, abdomine fulvo æneo vario, apice cupreo flavo bifasciato, antennis ferrugineis, pedibus fulvis, femoribus viridibus, alis limpidis.

Head yellow, clothed with yellow hairs, black and clothed with black hairs on the crown, whence a broad black stripe proceeds to the base of the feelers: eyes black, clothed with very short white hairs: mouth pitchy: feelers ferruginous; third joint darker; sixth black, ferruginous at the base: *chest and breast brassy-green: chest adorned with four tawny stripes*, clothed with tawny hairs which are longest and thickest on each side and on the scutcheon: breast tinged with gray, clothed with pale hairs: *abdomen* obconical, tapering towards the tip, longer than the chest, *tawny* and clothed with tawny hairs *for half the length from the base, this part is adorned with a coppery half-circle at the base, and with two rhomboidal coppery spots in the disk; hind half coppery, adorned with two yellow arched bands*, hind borders of its segments clothed with yellow hairs: *legs tawny*, clothed with tawny hairs; *thighs green* with tawny tips; each hind-shank armed with a very stout tooth, one side of which is serrated; claws black, tawny towards the base; tips of the hind-feet dark tawny: *wings colourless;* wing-ribs pitchy; veins black, tawny at the base and along the fore border; alulæ white, fringed with long yellow hairs; poisers tawny. Length of the body 5—6 lines; of the wings 9—10 lines.

Albania.

Merodon bicolor, Fem.

Niger, thorace trivittato, scutello abdomineque fulvis, hujus macula basali vittaque nigris apice ferrugineo, antennis pedibusque nigris, genubus fulvis, alis limpidis.

Black: head covered above with tawny down, hoary and clothed with whitish hairs beneath; epistoma and sides of the peristoma very promi-

nent: sixth joint of the feelers tawny, darker towards the tip: eyes black; facets on the sides of the crown a little larger than those elsewhere: *chest slightly covered with tawny down which forms three indistinct stripes*, its sides thickly clothed with tawny hairs: breast tinged with gray; *scutcheon dull tawny*, punctured: *abdomen* obconical, *bright tawny, ferruginous towards the tip*, longer than the chest, *adorned with a large triangular black spot at the base, whence an interrupted and irregular black stripe proceeds to the tip:* legs clothed with tawny hairs; *knees tawny;* shanks and feet covered beneath with tawny down; foot-cushions dark tawny; claws tawny with black tips; hind-thighs and hind-shanks much curved; a very broad short tooth armed with little spines beneath each hind-thigh near the tip; hind-shank terminating in a long curved hook: *wings colourless;* wing-ribs tawny; veins black, tawny at the base. Length of the body 6 lines; of the wings 11 lines.

Brazil.

Merodon Muscæformis, Fem.

Cyaneus, scutello abdominisque apice purpureis, antennis fulvis, pedibus nigris, alis limpidis.

Blue: head clothed in front with tawny hairs: crown and hind part clothed with black hairs; epistoma very prominent: eyes red, thinly clothed with whitish hairs: mouth black: feelers tawny: *chest* clothed with short black hairs, *tinged with purple on each side; scutcheon purple: abdomen* obconical, *purple towards the tip*, clothed with hoary hairs on each side of the base: *legs black*, clothed with short black hairs; hind-thighs very thick, fringed with longer hairs, armed beneath near the tip with a short blunt tooth; hind-shanks much curved, a notch near the base corresponding to the thigh-tooth: *wings colourless;* wing-ribs, veins, and poisers black. Length of the body 4 lines; of the wings 9 lines.

Van Diemen's Land.

Genus ERISTALIS, *Latreille.*

Eristalis floridus, Mas.

Ater, thorace vittis quatuor cyaneo-cinereis ornato, abdomine maculis sex ferrugineis cyaneo-cinereo ornatis, segmentorum 2i, 3i et 4i marginibus posticis flavis, antennis rufis, pedibus nigris, femoribus posticis crassis, alis subcinereis nigro maculatis vel fasciatis.

Black: head tinged with gray, clothed with pale hairs; face adorned with a pale buff tinge; tubercle of the eyelets black and clothed with black hairs: eyes red, thickly clothed with short black hairs: mouth black: feelers red: *chest deep black*, clothed with black hairs, *adorned with four bluish-gray stripes;* sides clothed with pale buff hairs; *hinder border of the scutcheon dark ferruginous:* breast tinged with gray: *abdomen* obconical, shining, not longer than the chest, clothed with hoary hairs, and on each side towards the base with short black hairs, *adorned with three pairs of large dark ferruginous spots which are overspread with bluish gray bloom; hind borders of second, third, and fourth segments pale yellow:* legs clothed with short black hairs; knees ferruginous; shanks and feet covered beneath with ferruginous down; claws tawny towards the base; foot-cushions tawny; hind-thighs thick; hind-shanks curved: *wings slightly gray; a small blackish spot beneath the middle of the fore border, sometimes extending across the wing;* wing-ribs pitchy; veins black, pitchy at the base; alulæ slightly tinged with gray, their borders pitchy and fringed with white hairs: poisers tawny. Length of the body 4—4½ lines; of the wings 8—9 lines.

Brazil.

Eristalis solennis, Mas.

Niger, capite scutello abdomineque fulvis, hujus vitta apiceque nigris, antennis rufis, pedibus nigris, tibiis piceis basi flavis, tibiis intermediis fulvis, alis sublimpidis ad costam subfulvis.

Head tawny, clothed with pale yellow hairs, ferruginous above the feelers where the hairs are black; face convex in the middle along most part of the length: eyes red; facets above larger than those elsewhere: sucker pitchy: feelers red: *chest and breast black*, clothed with tawny

hairs; *scutcheon tawny: abdomen tawny*, obconical, as long as the chest, *black with the exception of the hind borders of the segments for one-third of the length from the tip, having a black stripe along the back: legs black*, fringed with black hairs; *shanks pitchy, yellow at the base; middle-shanks tawny;* claws tawny at the base; foot-cushions tawny; hind-thighs rather thick; hind-shanks slightly curved: *wings nearly colourless, slightly tawny along the fore border;* wing-ribs tawny; veins black, tawny at the base; poisers tawny. Length of the body 7 lines; of the wings 12 lines.

——— ?

Eristalis Oxycanus.

Niger, scutello ferrugineo, abdomine fasciis tribus interruptis fulvis ornato, antennis pedibusque nigris, femoribus apice tibiisque basi fulvis, alis subcinereis.

Black: head covered with tawny down, clothed with tawny hairs; crown clothed with black hairs; a broad stripe between the feelers and the epistoma: eyes black: feelers black: *chest tinged with brown*, thickly clothed with short tawny hairs; *scutcheon ferruginous:* breast tinged with gray: *abdomen velvety*, nearly obconical, a little longer than the chest, clothed with tawny and black hairs, *adorned with three interrupted tawny bands, the first band is on each side of a somewhat triangular form whose inner border is concave; the second and the third are paler, each forms two curves, and the second terminates in a ferruginous spot on each side; hind borders of the segments and the whole of the underside grayish black, shining:* legs black, clothed with short black hairs; *shanks towards the base and tips of the thighs tawny;* foot-cushions dark tawny; claws tawny with black tips: *wings slightly gray;* wing-ribs pitchy; veins black, pitchy at the base and along the fore border; brands dark tawny; poisers tawny. Length of the body 5 lines; of the wings 9½ lines.

——— ?

Eristalis Everes, Mas.

Niger, scutello abdominis maculis quatuor segmentorum marginibus posticis ventreque fulvis, antennis piceis, pedibus fulvis, femoribus nigris, tibiis tarsisque apice nigris, alis limpidis basi fuscis ad costam subfulvis.

Black. head tinged with hoary, clothed with tawny down and hairs excepting a black shining stripe between the feelers and the epistoma,

clothed with black hairs above the base of the feelers and on the tubercle of the eyelets: eyes black: mouth pitchy: feelers pitchy; sixth joint tawny, black towards the tip: chest clothed with tawny hairs; *scutcheon tawny:* breast grayish: *abdomen deep black*, obconical, a little shorter than the chest, *adorned with two large tawny spots on each side of the second and third segments; hind borders of the segments tawny; underside tawny with a black tip:* legs tawny, clothed with short tawny hairs; feet and tips of the shanks clothed with black hairs; thighs black with tawny tips; tips of the shanks and of the feet black; foot-cushions and claws tawny; tips of the claws black: *wings colourless, brown at the base, with a slight tawny tinge along the fore border;* brands pale brown; wing-ribs pitchy; veins black, pitchy at the base. Length of the body 4 lines; of the wings 8 lines.

North America.

Eristalis Chalepus, Fem.

Nigro-fuscus, thorace vittis duabus canis abbreviatis ornato, abdomine maculis duabus fulvis fasciisque tribus pallidioribus, segmentorum marginibus posticis ventreque plumbeis, antennis nigris apice piceis, pedibus nigris, tibiis fulvis, alis subcinereis basi et ad costam subfulvis.

Black: head covered with pale buff down, clothed with pale buff hairs and on the crown with black hairs; face with the usual bare shining stripe which is raised along the whole length until near the feelers; eyes black: mouth black; tips of the palpi and of the maxillæ tawny: feelers black; third joint pitchy; sixth tawny with a black tip: *chest brown*, clothed with tawny hairs, *adorned with two hoary stripes which do not extend beyond half the length from the fore border: abdomen* obconical, a little longer and broader than the chest, *adorned with three slender pale buff interrupted bands, and on each side near the base with a large somewhat triangular tawny spot whose inner border is concave; the first and the second bands form curves on each side, the third is near the tip and very small; hind borders of segments and whole of underside lead-colour, shining:* legs black, clothed with short black hairs; shanks tawny, clothed with tawny hairs towards the base; shanks and feet covered beneath with tawny down: *wings pale gray, slightly tawny at the base and along the fore border;* brands

pale brown; wing-ribs ferruginous; veins black, ferruginous at the base and along the fore border; poisers tawny. Length of the body 6½ lines; of the wings 12 lines.

Canada.

Eristalis exterus, Fem.

Niger, abdomine vitta basali maculisque duabus fulvis ornato, pedibus nigris, alis limpidis basi nigris fascia brevi nigro-fusca ornatis.

Black: head tinged with gray, clothed with short tawny hairs and on the crown with short black hairs: eyes red: chest thickly clothed with tawny hairs, which are longest and brightest on each side: breast with a hoary tinge, clothed with pale hairs: *abdomen* obconical, not longer than the chest, clothed with tawny hairs, *adorned at the base with a broad tawny band which is partly interrupted by a small angular ferruginous spot; a large triangular tawny spot on each side of the fore borders of the second and third segments: legs black*, fringed with short black hairs: *wings colourless, blackish at the base; a large irregular blackish brown spot bordered by paler brown extends half across the wing from the middle of the fore border; cross-vein of the first posterior areolet clouded with brown;* wing-ribs and veins black; poisers tawny. Length of the body 6 lines; of the wings 12 lines.

East Indies.

Eristalis multifarius, Fem.

Niger, thorace trivittato, scutello fulvo, abdomine ferrugineo-fulvo fasciis duabus anticis et segmentorum 3i 4i-que discis nigris, antennis piceis basi nigris, pedibus fulvis nigro variis, femoribus posticis crassis, alis limpidis.

Black: head mostly covered with pale buff down, clothed with whitish hairs; crown clothed with short black hairs: eyes adorned with alternate red and black bands: third joint of the feelers pitchy, nearly elliptical, longer than the first and second joints; sixth tawny, black towards the tip: *chest adorned with a pale grayish buff covering which is interrupted by three black stripes; scutcheon tawny: abdomen tawny* with a ferruginous tinge, obconical, not longer than the chest, *black at the base; a black band*

near the hind border of the second segment; disks of the third and fourth segments black: legs clothed with short tawny hairs; *fore-thighs and middle-thighs black with tawny tips; hind-thighs thick, tawny with black tips; fore-shanks tawny with black tips; middle-shanks tawny; hind-shanks black, curved, with a tawny band; fore-feet and hind-feet pitchy; middle-feet tawny with black tips;* claws tawny with black tips: foot-cushions tawny: *wings colourless;* wing-ribs and veins tawny; veins black towards the tips; poisers tawny. Length of the body 4 lines; of the wings $7\frac{1}{4}$ lines.

East Indies.

Eristalis semicirculus, Mas.

Niger, abdominis maculis quatuor et segmentorum marginibus posticis fulvis, antennis piceis, pedibus nigris, tibiis tarsisque anterioribus basi fulvis, femoribus posticis crassis, alis limpidis.

Black: head adorned with a hoary covering: eyes bronzed: feelers pitchy: *chest adorned with two pale tawny bands,* the first straight, the other concave: breast with a hoary tinge: *abdomen* obconical, a little shorter than the chest, *adorned with four tawny spots,* of which the first pair are much larger than the second pair; *hind borders of the segments tawny: shanks and feet towards the base and knees tawny; hind-legs black with thick thighs, ferruginous knees and curved shanks: wings colourless;* wing-ribs tawny; veins black, tawny at the base; poisers tawny. Length of the body 3 lines; of the wings 6 lines.

Honduras.

Eristalis copiosus, Mas.

Niger, capite fulvo supra nigro, thorace cyaneo trivittato, abdominis vitta lata ventreque fulvis, apice cyaneo, circulo ante apicali viridi-æneo, antennis ferrugineis, pedibus fulvis, femoribus posticis apice nigris, tibiis posticis piceis fulvo cinctis, alis sublimpidis.

Head black, bright tawny and clothed with tawny hairs *in front:* eyes bright red; facets above larger than those elsewhere: feelers ferruginous: sixth joint black: *chest bright blue, adorned with three velvety black bands,* middle one broad and straight; side pair interrupted, nearly spindle-

shaped: *abdomen* obconical, much shorter than the chest, *with a broad tawny stripe from the base till near the tip which is blue, and has near it an almost annular brassy green mark; underside tawny:* legs tawny; feet black, tawny at the base; hind-thighs rather stout, with black tips; hind-shanks slightly curved, pitchy with a broad middle tawny band: *wings almost colourless:* wing-ribs pitchy; veins black, pitchy at the base and along the fore borders. Length of the body $4\frac{1}{2}$ lines; of the wings 10 lines.

——— ?

Eristalis epitome, Fem.

Fulvus, thoracis vittis quatuor pectorisque disco nigris, abdomine nigro maculis 6 ventreque fulvis, antennis pedibusque ferrugineis, tarsis fulvis apice nigris, alis limpidis.

Head black, tawny in front, adorned with tawny down which is paler on the face; a bare shining stripe on the face, convex in the middle; crown clothed with black hairs; epistoma convex: mouth black: feelers ferruginous; sixth joint tawny, black towards the tip: *chest and breast tawny*, clothed with short tawny hairs; *chest adorned with four black stripes;* disk of the breast black; scutcheon shining: *abdomen black*, obconical, a little shorter than the chest, *adorned with three pairs of tawny spots, first pair very large and forming a broad interrupted band near the base, second pair much smaller, third still smaller; underside tawny* and shining, and this hue extends slightly on each side above towards the second and third pairs of spots: *legs ferruginous;* feet mostly tawny, their tips black; claws and foot-cushions tawny; tips of the claws black; hind-thighs slender; hind-shanks slightly curved, rather broad: *wings colourless;* wing-ribs tawny; veins black, tawny towards the base; poisers tawny. Length of the body $5\frac{1}{2}$ lines; of the wings 11 lines.

New Holland.

Genus VOLUCELLA, *Geoffroy.*

Volucella evecta, Fem.

Nigra, fulvo-hirta, abdomine fasciis duabus nigro-hirtis ornato, antennis piceis, pedibus nigris, tarsis ferrugineis, alis sublimpidis fusco nebulosis fasciaque brevi fusco ornatis.

Very like *V. plumata*, but is partly clothed with different-coloured hairs, and the wings are more clouded. *Black: head thickly clothed with tawny hairs on the crown, and having a few tawny hairs in front:* eyes red: mouth pitchy: feelers pitchy; third joint red towards the tip; sixth joint tawny, black towards the tip, its hairs black, tawny at the base: *chest thickly clothed with tawny hairs: abdomen clothed with black hairs, adorned with two bands of tawny hairs which are thickest on the sides, one band at the base paler than the other which is near the tip:* legs black, clothed with short black hairs; knees ferruginous; feet ferruginous, clothed with short ferruginous hairs, pitchy at the tips; claws black, ferruginous at the base; foot-cushions ferruginous: wings nearly colourless, *veins clouded with pale brown; a blackish brown spot on the fore border joining a larger brown spot which extends half across the wing;* wing-ribs and veins tawny; veins black towards the tips; poisers tawny. Length of the body 7 lines; of the wings 14 lines.

United States.

Volucella linearis, Fem.

Ferruginea, capite fulvo, abdomine nigro basi fulvo, antennis pedibusque fulvis, alis subfulvis ad costam fuscis fulvo variis.

Head bright tawny, clothed with short tawny hairs; *a black stripe on each side of the peristoma:* eyes black: mouth pitchy: feelers tawny; sixth joint darker towards the tip: *chest and breast ferruginous,* clothed with tawny hairs: *abdomen* oval, *black,* clothed with very short black hairs, *tawny at the base, much longer than the chest: legs tawny;* tips of the shanks and of the joints of the feet armed with little black spines: *wings with a slight tawny tinge; a dark brown stripe which is tawny here and there extends along the fore border and occupies near half the breadth of the wing;* wing-ribs and veins tawny; veins darker in the brown parts; poisers tawny with yellow knobs. Length of the body 8 lines; of the wings 16 lines.

———?

Genus TEMNOCERA, *St. Farg. et Serv.*

Temnocera fulvolucens, Mas.

Fulva, capitis thoracisque discis purpureis, abdomine supra piceo, antennis pedibusque fulvis, tibiis posticis tarsisque piceis, alis subcinereis basi costa venarumque marginibus fulvis.

Allied to *T. pallida*. *Tawny*, clothed with short black hairs: head clothed with tawny hairs; *crown purplish*: eyes red, thickly clothed with short black hairs; facets along the hind border smaller than those elsewhere: feelers tawny: *disk of the chest purple or greenish tawny*, its sides beset with black bristles: *abdomen* obconical, a little shorter and broader than the chest, *pitchy above, pale tawny at the base*: legs tawny; feet pitchy, tawny at the base; claws black, tawny at the base; hind-shanks mostly pitchy: *wings slightly tinged with gray, tawny at the base and beneath the fore border and along the veins in the disk*; wing-ribs and veins tawny; veins black towards the tips; poisers yellow. Length of the body 3½—4 lines; of the wings 9—10 lines.

Brazil.

Temnocera metallorum, Mas.

Ferruginea, supra cupreo viridi et purpureo ornata, antennis fulvis, pedibus piceis, femoribus ferrugineis, alis cinereis basi costa nervorumque marginibus fuscis.

Ferruginous: thickly clothed with short black hairs: head thickly clothed with short tawny hairs: eyes black, thickly clothed with short black hairs; facets larger on the crown than elsewhere: mouth tawny; feelers tawny; sixth joint darker towards the tip: chest thickly clothed with short black hairs; *disk coppery varied with metallic green and purple*; scutcheon purple, beset like the sides of the chest with black bristles: *abdomen* obconical, broader and a little shorter than the chest, *coppery, tinged with green and purple*; tip and underside partly ferruginous: *legs pitchy*, clothed with short black hairs; *hips and thighs ferruginous*; claws black, tawny at the base; foot-cushions pale tawny; *wings gray, brown at the base beneath the fore border and along the borders of the veins*; wing-ribs pitchy; veins black, ferruginous at the base and along the fore border; poisers tawny. Length of the body 5½ lines; of the wings 12 lines.

Parà.

1852

INSECTA SAUNDERSIANA, &c.

Fam. CONOPSARIÆ, *Latr.*

Genus CONOPS, *Linn.*

Species described.

EUROPE.

1. vesicularis, *L.*
2. elegans, *Mg.*
3. flavipes, *L.*
4. 4-fasciata, *Dg.*
5. aculeata, *L.*
6. flavifrons, *Mg.*
7. macrocephala, *L.*
8. nigra, *Dg.*
9. rufipes, *Fb.*
10. Pallasii, *Mg.*
11. chrysorrhæa, *Meg.*
12. vittata, *Fb.*
13. lacera, *Meg.*
14. pusilla, *Mg.*
15. variegata, *Mg.*
16. ceriæformis, *Meg.*
17. dorsalis, *Meg.*
18. strigata, *Meg.*
19. signata, *Meg.*
20. annulipes, *Meg.*
21. silacea, *Wd.*
22. bicincta, *Mg.*
23. terminata, *Carcel.*
24. meridionalis, *Mq.*
25. pumila, *Mq.*
26. maculata, *Carcel.*
27. trifasciata, *Mg.*
28. ferruginea, *Mq.*
29. insignis, *Loew.*
30. erostrata, *Rdn.*
31. diademata, *Rdn.*

NORTH AMERICA.

32. excisa, *Wd.*
33. sagittaria, *Say.*
34. marginata, *Say.*
35. costata, *Fb.*
36. fulvipennis, *Mq.*
37. picta, *Fb.*
38. brachyrhynchus, *Mq.*
39. flaviceps, *Mq.*
40. æthiops, *Wlk.*

SOUTH AMERICA.

41. analis, *Fb.*
42. sericea, *Enc. Méth.*
43. lugubris, *Mq.*
44. rufipennis, *Mq.*
45. ephippium, *Mq.*
46. bipunctata, *Mq.*
47. Cayennensis, *Mq.*
48. aurifrons, *Wlk.*

AFRICA.

49. antiqua, *Wd.*
50. Capensis, *Wd.*
51. atra, *Mq.*
52. Natalensis, *Mq.*

ASIA.

53. erythrocephala, *Fb.*
54. gigas, *Mq.*
55. testacea, *Mq.*

AUSTRALIA.

56. aurosa, *Nwm.*
57. aptata, *Wlk.*
58. æquata, *Wlk.*
59. inglorior, *Wlk.*

Habitat?
60. sugens, *Wd.*
61. sellata, *Mq.*
62. lugubris, *Mq.*
63. cruda, *Wlk.*
64. inhabilis, *Wlk.*
65. maura, *Wlk.*
66. excerpta, *Wlk.*

Rondani has divided Conops into the following genera:—

1. Brachiglossum, *Rdn.* (Leopoldius, *Rdn.* olim). Sp. 1, erostrata; 2, diademata.
2. Conopœus, *Rdn.* Sp. 1, 4-fasciata; 2, flavipes; 3, flavifrons.
3. Conops. Sp. 1, pusilla; 2, lacera; 3, vittata; 4, macrocephala.
4. Spariglossum, *Rdn.* (Conopoideus, *Rdn.* olim). Sp. 1, ferruginea.
5. Conopilla, *Rdn.* Sp. 1, ceriæformis.

Conops dimidiata, *Saunders' MSS.*

Ferruginea; capitis vittis duabus thoracisque tribus nigris; abdomine nigro-cinereo; antennis ferrugineis, articulo 2o piceo; pedibus fulvis, femoribus anterioribus nigro vittatis posticis nigris; tibiis basi flavis, tarsis nigris; alis fuscis ad costam obscurioribus.

Ferruginous: mouth and furrows of the face pitchy: mouth black: feelers pitchy, ferruginous at the base and at the tips: *chest with three black stripes;* middle stripe longer than the others in front: disk of the breast pitchy: *abdomen black*, transversely striated, clothed with short black hairs, about twice the length of the chest, with a hoary tinge towards the tip; *hind borders of the first and second segments ferruginous; second segment long, slender, cylindrical, slightly tapering from the base to the tip, much narrower than the following segments, which form a fusiform club:* legs stout; feet and hind-thighs black; anterior thighs striped with black beneath: *wings black, gray along the hind border, the black outline forming an angle at the junction of the præbrachial vein and the lower cross veins;* the præbrachial vein is the same as the fifth vein, and the part beyond its flexure in this and in the following family is the tip cross-vein of Meigen: poisers ferruginous. Length of the body 8 lines; of the wings 14 lines.

——— ?

Conops Pactyas, Mas.

Picea, aureo-micans; capite flavo; abdominis segmentorum marginibus posticis apiceque ferrugineis; antennis nigris; pedibus fulvis; alis subcinereis ad costam basi flavo-fuscis apice nigro-fuscis.

Pitchy: head silky yellow in front and beneath: mouth and feelers black: feelers hairy, long, slender: *abdomen sessile, slightly widening from the base to the tip, nearly twice the length of the chest; first segment and hind border of the second gilded; hind borders of the following and tip ferruginous:* legs ferruginous, slender, clothed with black down; thighs and shanks with a silvery tinge; feet pitchy with ferruginous tips; foot-cushions and claws yellow, the latter with black tips: *wings gray, lurid along the fore border for more than half the length, dark brown from thence to the tips:* poisers luteous. Length of the body 7 lines; of the wings 12 lines.

Java.

Conops minor, Fem.

Nigra; capite antico fulvo; antennis pedibusque picco-ferrugineis; alis subcinereis ad costam nigris.

Black: crown and epistoma tawny: feelers hairy, ferruginous beneath at the base, tawny beneath towards the tips: chest with a hoary tinge on each side: *abdomen obclavate, more than twice the length of the chest; second segment cylindrical, very slender; third obclavate, much shorter and towards the tip broader than the second; fourth, fifth and sixth broader and shorter than the third;* hind borders of the first and of the second hoary: legs pitchy, here and there ferruginous; shanks tawny towards the base: *wings pale gray, black along the fore border for half the breadth and for three-fourths of the length; black outline forming two angles:* poisers yellow. Length of the body 3½ lines; of the wings 4 lines.

Albania.

Conops Sphegiformis, Fem.

Nigra ; capite thoracisque lateribus luteis ; thorace fulvo fasciato ; abdominis segmentis 2o et 3o ferrugineis ; antennis nigris ; pedibus ferrugineis, femoribus posticis nigris ; alis subcinereis ad costam nigricantibus.

Black : head luteous ; a pitchy stripe on the crown : mouth and feelers black, the latter ferruginous beneath : *chest with a tawny band near the tip ; sides luteous : abdomen obclavate, a little more than twice the length of the chest,* gilded towards the tip ; *second and third segments ferruginous ; second long, cylindrical, very slender ; third conical, pitchy on the disk towards the tip, much shorter than the second ; fourth and following segments shorter than the third :* legs ferruginous ; shanks with a silvery tinge ; hind-thighs black, ferruginous towards the base ; hind-shanks with a pitchy band near the tips : *wings pale gray, blackish along the fore border for half the breadth ; black outline angular towards the tips :* poisers luteous. Length of the body 4½ lines ; of the wings 6 lines.

Port Philip.

Conops sericea.

Nigra, cinerascens ; caput aureum ; thorax subvittatus ; abdomen subsessile ; antennæ graciles ; tarsi flavi ; alæ cinereæ, macula fusca furcata.

Black : head pale gold-colour in front : feelers slender, much attenuated towards the tips : chest and abdomen with a hoary tinge : chest very indistinctly striped : *abdomen almost sessile, a little more than twice the length of the chest ; second segment stout, rather short, widening from the base to the tip ; third broader but not shorter than the second, forming with the following a spindle-shaped club :* feet yellow *: wings gray, with a brown forked stripe in the disk ; upper fork much longer than the lower :* halteres yellow, brown at the base. Length of the body 7 lines ; of the wings 11 lines.

Amazon River.

Fam. MUSCIDÆ, *Leach.*

Sub-fam. GASTRODEÆ, *Desv.*

Genus GYMNOSOMA, *Mg.*

Sub-genera and species described.

GYMNOSOMA.

1. rotundata, *L.* Europe.
 var. obliqua, *Desv.*
2. costata, *Pz.* „
3. Latreillii, *Desv.*
4. fuliginosa, *Desv.* N. Amer.
5. atra, *Desv.*
6. minuta, *Desv.* Europe.
7. nitens, *Wd.* „
8. microcera, *Desv.* „
9. par, *Wlk.*
10. occidua, *Wlk.*

CISTOGASTER, *Latr.*
Pallasia, *Desv.*

11. globosa, *Fb.* Europe.
12. dispar, *Fln.* „
13. aurantiaca, *Mg.* „
14. immaculata, *Mq.* N. Amer.

STRONGYGASTER, *Mq.*

15. globula, *Mg.*
16. exigua, *Mg.*
17. delicata, *Mg.*

GYMNOSOMA INDICA.

Nigra; caput auratum; thorax fulvescens; abdomen fulvum maculis nigris vittatum; alæ cinereæ, basi fulvæ.

Black: head adorned with a gold covering; *face, epistoma and under side white:* chest with a bright tawny covering: *abdomen tawny with a row of black spots which are all connected together excepting the last:* wings gray, tawny at the base: winglets and halteres bright yellow. Length of the body 3½ lines; of the wings 7 lines.

East Indies.

Sub-fam. Phasianeæ, *Desv.*

Genera and species described.

I. Trichopoda, *Latr.*

North America.

1. formosa, *Wd.*
2. lanipes, *Fb.*
3. pennipes, *Fb.*
4. cilipes, *Wd.*
5. hirtipes, *Fb.*
6. plumipes, *Fb.*
7. flavicornis, *Desv.*
8. ciliata, *Wd.*

Mexico.

9. Mexicana, *Mq.*

S. America.

10. subcilipes, *Mq.*
11. luteipennis, *Wd.*
12. inconstans, *Wd.*
13. apicalis, *Wd.*
14. pyrrhogaster, *Wd.*
15. pilipes, *Fb.*
16. gradata, *Wd.*
17. nigra, *Mq.*

II. Xysta, *Mg.*

1. cilipes, *Mg.* Europe.
2. holosericea, *Fb.* „
3. Latreillii, *Desv.* „
4. cana, *Hal.* „

III. Freræa, *Desv.*

1. gagatea, *Desv.* Europe.

IV. Clytia, *Desv.*

1. Dalmatica, *Desv.* Europe.

IV. Clytia, *Desv.*

2. atra, *Desv.* N. America.
3. cylindrica, *Desv.* Europe.
4. gentilis, *Desv.* „
5. continua, *Fb.* „
 Var.? pratensis, *Desv.*
6. vaga, *Desv.* „

V. Phasia, *Latr.*

1. crassipennis, *Fb.* Europe.
2. nigra, *Desv.* „
3. helva, *Wd.* Cape.
4. oblonga, *Desv.* Europe.
5. campestris, *Desv.* „
 Var.? agrestis, *Desv.*
 Var.? arvensis, *Desv.*
6. albifacies, *Desv.* Europe.
7. tæniata, *Pz.* „
8. obscuripennis, *Desv.* „
9. brachyptera, *Pz.* „
10. Ancora, *Meg.* „
11. diluta, *Mg.* „
12. tæniata, *Wd.* Cape.

VI. Alophora, *Desv.*

1. subcoleoptrata, *Linn.* Eur.
2. hemiptera, *Fb.* „
3. pilosa, *Desv.* „
4. ferruginea, *Desv.* „

VII. Elomya, *Desv.*

1. nebulosa, *Pz.* „
2. nubeculosa, *Mg.* „
3. umbripennis, *Mg.* „
4. nervosa, *Mg.* „

VII. Elomya, *Desv.*

5. muscaria, *Fln.* Europe.
6. nubilipennis, *Meg.* „
7. aurulans, *Meg.* „
8. bucephala, *Meg.* „
9. claripennis, *Desv.* „
10. aurulans, *Desv.* „
11. nigra, *Desv.* „
12. abdominalis, *Desv.* „
13. punctata, *Mg.* „
14. lateralis, *Meg.* „
15. cana, *Hgg.* „
16. ornata, *Mg.* „
17. argentifrons, *Wlk.* S. Afr.

VIII. Hyalomya, *Desv.*

1. atropurpurea, *Mg.* Europe.
2. violacea, *Mg.* „
3. hamata, *Mg.* „
4. obesa, *Fb.* „
5. albipennis, *Mg.* „
6. nebulosa, *Desv.* „
7. carbonaria, *Desv.* „
8. cinerea, *Fb.*
9. pusilla, *Hgg.* „
10. hyalipennis, *Fln.* „
11. semicinerea, *Mg.* „
12. nana, *Fln.* „
13. pygmæa, *Fln.* „
14. Freyreisii, *Wd.* Brazil.

Trichopoda decisa.

Fulva; caput supra nigrum, antice et subtus flavum; thoracis discus nigro trivittatus; femora tibiæque apice tarsique nigra; alæ subcinereæ, ad costam fulvæ, apice fuscæ.

Tawny: head pale yellow in front and beneath; crown black, excepting the sides: *disk of the chest with three black stripes:* feet and tips of the thighs and of the shanks black: *wings slightly gray, tawny along the fore border till near the tips, where they are dark brown:* winglets pale tawny. Length of the body $5\frac{1}{2}$ lines; of the wings $9\frac{1}{2}$ lines.

Amazon River.

Genus PHASIA, *Latr.*

Phasia indica, Fem.

Testacea; thoracis discus fuscus; alæ subcinereæ fasciis tribus albidis.

Testaceous: feelers luteous; sixth joint black: disk of the chest brown: sides and tip of the abdomen beset with black bristles: legs testaceous: wings pale gray, with three whitish bands, the first at the base; second very broad, before the middle; third narrow, beyond the middle;

veins brownish, yellow in the pale parts: alulæ yellowish. Length of the body 2½ lines; of the wings 5½ lines.

Madras or Calcutta.

Genus HYALOMYA, *Desv.*

Hyalomya occidentis, Mas.

Atra, caput argentatum; abdomen canum basi vittaque fasciisque duabus nigris; alæ limpidæ.

Deep black: head with a silvery covering; frontalia deep black, triangular: abdomen hoary, black towards the base and with a black stripe and two black bands; legs black: wings colourless; veins black, yellow towards the base and along the fore border: alulæ white: poisers yellow. Length of the body 2½ lines; of the wings 5 lines.

United States.

Sub-fam. Ocypteratæ, *Desv.*

Species described.

I. Lophosia, *Mg.*
1. fasciata, *Mg.* Europe.

II. Duvaucelia, *Desv.*
Curtocera, Mq.
1. bicincta, *Desv.* E. Indies.

III. Phania, *Mg.*
1. obscuripennis, *Mg.* Europe.
2. vittata, *Mg.* „
3. lateritia, *Mg.* „
4. thoracica, *Mg.* „
5. curvicauda, *Fln.* „
6. flavipalpis, *Mq.* „

IV. Weberia, *Desv.*
1. appendiculata, *Desv.* Europe.

V. Icelia, *Desv.*
1. flavescens, *Desv.* Brazil.
2. Brasiliensis, *Desv.* „

VI. Hemyda, *Desv.*
1. aurata, *Desv.* N. America.

VII. Hermya, *Desv.*
1. Afra, *Desv.* Brazil.
2. Hottentota, *Desv.* Cape.

VIII. Ervia, *Desv.*

1. triquetra, *Oliv.* N. America.

IX. Ocyptera, *Latr.*

1. brevicornis, *Loew.*
2. bicolor, *Oliv.* Europe.
3. excisa, *Loew.* Asia Minor.
4. carinata, *Loew.* Europe.
5. crassa, *Loew.* „
6. costalis, *Loew.* „
7. scapularis, *Loew.* „
8. scalaris, *Loew.* „
9. gracilis, *Loew.* „
10. rufifrons, *Loew.* „
11. pilipes, *Loew.* „
12. brassicaria, *Fb.* „
13. intermedia, *Mg.* „
14. setulosa, *Loew.* „
15. coarctata, *Loew.* „
16. auriceps, *Mg.* „
17. nigrita, *Mg.* „
18. rufipes, *Mg.* „
19. fulva, *Desv.* „
20. similis, *Desv.* Brazil.
21. pictipennis, *Mq.* Senegal.

IX. Ocyptera, *Latr.*

22. dorsalis, *Wd.* Brazil.
23. bicolor, *Wd.* E. Indies.
24. fuscipennis, *Wd.* Java.
25. marginalis, *Wd.* Cape.
26. atrata, *Fb.* Guinea.
27. bimacula, *Wlk.* Van Diemen's Land.
28. Dotadas, *Wlk.* Jamaica.
29. Epytus, *Wlk.* Georgia.
30. Dosiades, *Wlk.* Nova Scotia.
31. picta, *Wlk.* Sierra Leone.
32. Euchenor, *Wlk.* N. Amer.

X. Parthenia, *Desv.*

1. cylindrica, *Fb.* Europe.
2. interrupta, *Mg.* „
3. Boscii, *Desv.* „
4. Carolinæ, *Desv.* N. Amer.

XI. Clairvillia, *Desv.*

1. pusilla, *Mg.* Europe.

XII. Besseria, *Desv.*

1. reflexa, *Desv.* Europe.

Genus PHANIA, *Mg.*

Phania indica.

Nigra; caput argenteum; antennæ subtus ferrugineæ; thorax canus, fusco quadrivittatus; abdomen cano bivittatum; tibiæ ferrugineæ; alæ albidæ, basi flavæ apice cinereæ.

Black: head silvery-white, clothed behind and beneath with white hairs; frontalia deep black, widening much from the cyclets to the feelers; foveæ pale gold-colour with black borders; facialia of the peristoma beset with bristles; facialia of the face without bristles, except at the base;

epistoma not prominent: mouth black; palpi ferruginous: *feelers* black, tinged with gray, *partly ferruginous beneath*, third joint with four small orifices on the disk of the outer side, two obliquely above the other two; fourth and fifth tawny; sixth tawny towards the base: *chest hoary, with four dark brown stripes*, the inner pair slender, the outer pair broad, widening towards the hind chest: *two broad hoary bands on the fore borders of the second and third abdominal segments:* thighs hoary beneath; *shanks ferruginous:* wings whitish, yellow at the base, colourless along the hind border, gray at the tips; veins tawny, darker towards the tips: alulæ whitish, with yellow borders: halteres yellow. Length of the body 5 lines; of the wings 8 lines.

East Indies.

Genus OCYPTERA, *Latr.*

Ocyptera marginalis, *Wied.*

Var? *Caput fulvum, supra nigrum, antice argentatum; thorax niger; pedes fulvi; tarsi nigri; alæ subcinereæ, basi ad costam et ad venas fuscæ.*

Black: head tawny, black above, silvery white in front: *feelers luteous:* abdomen wanting: *legs tawny; feet black: wings slightly gray, brown at the base, along the fore border and along the veins:* alulæ white. Length of the body 3½? lines; of the wings 6 lines.

Cape.

Ocyptera? diversa, Fem.

Nigra; caput auratum, antice album, subtus canum; abdomen basi testaceum; pedes rufi, femoribus anticis basi tarsisque nigris; alæ sublimpidæ, ad costam fuscæ.

This species does not belong to any of the genera into which the Ocypteratæ have been divided.

Black, shining: *head pale gold-colour, hoary beneath;* frontalia deep black, broad, almost linear; face white; its facialia without bristles; epistoma slightly prominent; facialia of the peristoma beset with bristles: mouth pitchy: eyes with small facets: feelers black; third joint com-

pressed, obliquely rounded at the tip, nearly twice the length of the second joint: abdomen full twice the length of the chest; *first segment cylindrical, with a large testaceous spot on each side of the hind border;* second and following segments together spindle-shaped, broader than the first, and about twice its length; second testaceous along the fore border; tip curved beneath: *legs red; fore-thighs black towards the base; feet black: wings almost colourless, dark brown along the fore border for full one-third of the breadth;* first posterior areolet closed on the border of the wing; præbrachial vein almost straight beyond its flexure; veins black: alulæ whitish with pale yellow borders: halteres yellow. Length of the body 5 lines; of the wings 8 lines.

Van Diemen's Land.

Genus TACHINA, *Fabr.*

In this and in some of the following groups, the genera of Desvoidy and of Macquart are not adopted, as the characters assigned to them frequently differ from those of the species here described.

The following Tachinæ may be grouped thus:—

a. Fifth feeler-joint long.
b. Second feeler-joint long.
c. Third feeler-joint twice the length of the second.
similis.
c c. Third feeler-joint longer than the second.
d. Third feeler-joint convex above. Jurinia.
pilosa, triformis, notata.
d d. Third feeler-joint straight above Hystricia.
varia, caliginosa, lativitta, similis.
c c. Third feeler-joint shorter than the second.
d. Palpi clavate Fabricia.
Californiæ, divisa.
d d. Palpi filiform Echinomyia.
e. Third joint almost straight above.
bomboides, nitida, sobria, subcinerea, vittata.
e e. Third joint very convex above.
atra, transversa, obtusa, dorsalis, apicalis, fulva.

b b. Second feeler-joint short; third furcate Schizotachina, n.
convecta, exul.
a a. Fifth feeler-joint short.
b. Sixth feeler-joint short, stout.
insolita.
b b. Sixth feeler-joint long, slender.
c. Præbrachial vein forming a slightly acute angle at its flexure.
grandis.
c c. Præbrachial vein forming a hardly acute angle at its flexure.
d. Sixth feeler-joint bare.
australis.
d d. Sixth feeler-joint pubescent.
squamata.
c c c. Præbrachial vein forming a right angle at its flexure.
d. Sixth feeler-joint bare.
e. Third feeler-joint much longer than the second.
ruficornis.
c c. Third feeler-joint much more than twice the length of the second.
f. Facialia without bristles.
concisa.
f f. Facialia bristly along half the length.
remota.
e e e. Third feeler-joint full four times the length of the second.
basalis.
d d. Sixth feeler-joint pubescent.
lucifera.
c c c c. Præbrachial vein forming an almost right angle at its flexure.
d. Third feeler-joint less than twice the length of the second.
ornata.
d d. Third feeler-joint not less than twice the length of the second.
albifrons, latifrons, nigrorufa, atrata, socia, fuliginosa.
d d d. Third feeler-joint full four times the length of the second.
proxima, tincta.
d d d d. Third feeler-joint six times the length of the third.
imbuta.
c c c c c. Præbrachial vein forming a hardly obtuse angle at its flexure.
d. Third feeler-joint less than thrice the length of the second; sixth bare.
densa, hebes.

d d. Third feeler-joint about four times the length of the second; sixth downy.

addita.

c c c c c c. Præbrachial vein forming a slightly obtuse angle at its flexure.

d. Third feeler-joint about twice the length of the second.

atriventris.

d d. Third feeler-joint near twice the length of the second.

umbrosa, dubia.

d d d. Third feeler-joint six times the length of the second.

e. Facialia beset with bristles.

adusta.

e e. Facialia without bristles.

alta.

c c c c c c c. Præbrachial vein forming an obtuse angle at its flexure.

d. Third feeler-joint full twice the length of the second.

picea, umbrifera, compacta.

d d. Third feeler-joint thrice the length of the second.

e. Facialia without bristles.

interrupta, ~~obconica~~. *subvaria 299*

e e. Facialia bristly.

chrysotelus.

d d. Third feeler-joint four times the length of the second.

subpicea.

c c c c c c c c. Præbrachial vein forming a very obtuse angle at its flexure.

d. Sixth feeler-joint bare.

e. Third feeler-joint about twice the length of the second.

sordida, subaurata.

e e. Third feeler-joint not less than thrice the length of the second,

antennata, ancilla.

e e e. Third feeler-joint not less than four times the length of the second.

obconica, vulgata, tricincta.

d d. Sixth feeler-joint pubescent.

e. Third feeler-joint much more than twice the length of the second.

vittata.

e e. Third feeler-joint thrice the length of the second.

tenebrifera, scita.

e e e. Third feeler-joint four times the length of the second.

f. Facialia without bristles.
cincta.
ff. Facialia bristly.
nigrifera, atrata, ruficornis.

Tachina similis, Mas.

Testacea; thoracis discus cinereo-niger; abdomen flavo nitens, nigro vittatum, apice ferrugineum; antennæ nigræ, basi et subtus fulvæ; pedes testacei; alæ subcinereæ, basi subfulvæ.

Testaceous: frontalia pale ferruginous, widening from the eyelets to the feelers: epistoma prominent: eyes very hairy: *feelers tawny; third joint black above and towards the tip*, nearly straight above, rounded at the tip, twice the length of the second joint; fourth, fifth and sixth black; fifth longer than the fourth: *disk of the chest black, tinged with gray: abdomen with pale yellow reflections and with a black stripe;* tip ferruginous: *legs testaceous;* tips of the feet pitchy: *wings very slightly gray, with a tawny tinge at the base;* veins tawny; cross-veins black; præbrachial vein forming a right angle at its flexure, slightly inclined inward from thence to its tip, which approaches very near the cubital vein; lower cross-vein with the two usual curves which are distinct: alulæ whitish, with tawny borders: halteres yellow. Length of the body 4½ lines; of the wings 9 lines.

New South Wales.

1. Tachina pilosa.

Musca pilosa? *Drury.*

Nigra; caput cinereo-fulvum, antice et subtus albidum; antennæ articulo 3o basi subtus ferrugineo; thorax cinerascens, nigro vittatus; abdomen basi utrinque et subtus rufescens; alæ cinereæ, basi luridæ.

Black: head grayish-tawny above, whitish in front and beneath: tip of the mouth ferruginous; palpi tawny: *third joint of the feelers* tinged with gray, *ferruginous beneath towards the base: chest grayish, with slender indistinct and interrupted black stripes: abdomen* deep black, *slightly red*

on each side towards the base and beneath : legs black; thighs tinged with gray: *wings and alulæ gray; wings lurid at the base.* Length of the body 6 lines; of the wings 14 lines.

South America.

2. Tachina triformis, Fem.

Testacea; caput antice et subtus auratum; antennæ nigræ; abdomen subtus nigricans; pedes nigri.

Fem. *Dark testaceous : head* above furrowed, with a tawny scapula above the base of the feelers; *fore part and under side gold colour :* mouth pitchy: *feelers black; third joint very much longer than the second :* breast pale testaceous: *abdomen much broader than the chest;* hind borders of the segments thickly beset with very stout black spines; *under side blackish : legs black.* Length of the body 7—8 lines; of the wings 16—18 lines.

Columbia.

3. Tachina notata, Fem.

Atra; caput cinereo-luridum; thorax subcinereus, nigro quadrivittatus; scutellum nigro-piceum; alæ subfuscæ, basi subluridæ; venæ transversæ fusco marginatæ.

Deep black : head with a lurid gray covering; frontal region with very few bristles on each side; *frontalia dark ferruginous;* interfrontalia indistinct; each of the facialia with a row of bristles which does not extend above the epistoma, the latter is very prominent; lateralia tawny: third joint of the feelers a little longer and deeper than the second, very slightly convex above, beneath and at the tip: *chest slightly tinged with gray, which has on the fore part four very slender black stripes; scutcheon pitchy black : abdomen much broader than the chest : wings pale brown,* with a lurid tinge near the base; *cross-veins clouded with dark brown;* præbrachial vein forming an acute angle at its flexure, beyond which it is much curved: alulæ white. Length of the body 7 lines; of the wings 16 lines.

Columbia.

Tachina varia, Mas et Fem.

Fusca (mas) *vel flavo-fusca* (fem.); *caput* fem. *fulvum, antice albidum; antennæ nigræ basi ferrugineæ; thorax* fem. *nigro quadrivittatus; abdomen ferrugineum* (mas) *vel fusco-fulvum nigro fasciatum* (fem.); *pedes fulvi* (mas) *vel ferruginei* (fem.); *alæ fuscæ albido notatæ.*

Body thickly beset with black spines: *head tawny, whitish in front*, where it is thinly covered with black hairs, clothed with white hairs beneath; sides of the epistoma beset with black bristles: proboscis black, ferruginous towards the tip: *feelers black; first and second joints ferruginous;* third almost linear, rounded at the tip, longer and a little deeper than the second: *chest yellowish brown, with four very slender black stripes: abdomen brownish tawny, with a black dorsal stripe which is widened at the base of each segment;* sutures black: legs ferruginous; feet black: *wings brown, black at the base, with some whitish streaks in the disk adjoining the cross-veins which are clouded with black.*

Male. *Head and chest dark brown;* face and epistoma pitchy, ferruginous on each side: *abdomen ferruginous:* legs tawny: whitish marks on the wings very slight.

Length of the body 5—6 lines; of the wings 12—14 lines.

Columbia.

Tachina caliginosa.

Ferruginea; caput canum nigro vittatum, antice et subtus albidum; thorax cinereus vittis septem nigris; tarsi nigri; alæ fuscæ.

Head hoary, with a black stripe which widens from the hind border to the base of the feelers; *fore part and under side whitish;* proboscis ferruginous: palpi tawny: feelers black; third joint linear, a little longer than the second: *chest gray with seven indistinct black stripes: breast, scutcheon, abdomen and legs ferruginous:* feet black: *wings and alulæ dark brown;* præbrachial vein curved inward a little beyond its flexure; lower cross-vein slightly waved. Length of the body $6\frac{1}{2}$ lines; of the wings 14 lines.

Brazil.

Tachina lativitta, Mas.

Flavo-fusca; caput antice albidum, subtus fulvum; antennæ nigræ; abdomen testaceum, fusco vittatum, subtus nigrum; pedes nigri; alæ nigro-fuscæ.

Yellowish-brown: head tawny beneath; face whitish; epistoma very prominent: feelers black; third joint rather deep, especially towards the tip, nearly twice the length of the second: *abdomen dark testaceous with a broad brown dorsal stripe, black beneath: legs black: wings very dark brown;* præbrachial vein much curved inward a little beyond its flexure which forms a right angle; lower cross-vein waved. Length of the body 6½ lines; of the wings 16 lines.

Tachina similis, Mas.

Cinerea; caput antice et subtus fulvum, argentatum; antennæ nigræ, subtus et basi rufæ; thorax nigro quadrivittatus; scutellum ferrugineum; abdomen cinereo-piceum, ad discum nigricans; pedes nigri; tibiæ rufæ; alæ cinereæ.

Cinereous, beset with stout black bristles: *head* broad, *tawny and with a silvery white covering in front and beneath,* clothed beneath and behind with white hairs; frontalia ferruginous, slightly widening from the eyelets to the feelers, paler in the disk, blackish towards the eyelets: epistoma prominent; a few bristles on the crown and front; facialia without bristles along the face, with bristles on each side of the epistoma and of the peristoma: mouth black, slender, ferruginous at the tip; palpi tawny, very slender: *feelers pale red; third joint black, pale red beneath,* very convex above, straight beneath, conical towards the tip, much shorter than the second joint, and nearly twice its depth; orifice at one middle of the length and at one-third of the height from the under side; bristle black; fifth joint more than twice the length of the fourth, and about one-fourth of the length of the sixth: *chest with four black stripes;* inner pair slender; outer pair broader, interrupted: *scutcheon ferruginous: abdomen pitchy,* obconical, *with cinereous reflections, blackish on the disk,* very little longer than the chest: *legs black; trochanters and shanks red: wings gray;* veins black, tawny towards the base and along the fore border; præbra-

chial vein forming at its flexure an acute angle, near which it is clouded with brown, and much curved inward, straight from thence to the tip which approaches very near the tip of the cubital vein; lower cross-vein with two curves, the lower inward, more shallow than the upper which is outward; middle cross-vein clouded with brown: alulæ white: halteres tawny, with pitchy knobs. Length of the body 5½ lines; of the wings 9½ lines.

South America.

Tachina Californiæ, Mas.

Ænea, sericea; caput stramineum; scutellum margino postico testaceum; abdomen viridi-nigrum, apice rufum; pedes nigri; alæ subcinereæ, basi albidæ.

Head pale straw-colour, clothed behind and beneath with yellow hairs; *crown coppery-black;* frontalia ferruginous, testaceous and slightly widening towards the feelers: mouth black, shining, ferruginous at the base and at the tip; palpi tawny, subclavate: feelers black; first and second joints tawny; third joint very little shorter than the second, straight beneath, very convex above, shallower towards the tip than at the base, its height more than half its length; orifice near the under side, a little nearer the base than the tip; fourth joint about half the length of the fifth which is near one-fourth of the length of the sixth: *chest brassy*, partly silky; *scutcheon testaceous along the hind border: abdomen greenish black, tip red: legs black;* claws ferruginous with black tips; onychia tawny: *wings pale gray, whitish at the base;* veins black, tawny at the base; præbrachial vein forming a slightly obtuse angle at its flexure, near which it is a little bent inward, straight from thence to the tip; lower cross-vein with two very indistinct curves, the lower inward, the upper outward: alulæ white, with pale straw-colour borders: halteres tawny. Length of the body 5 lines; of the wings 10 lines.

California.

Tachina divisa, Mas.

Nigra; caput album; thorax cinerascens, nigro quadrivittatus; scutellum ferrugineum; abdomen apice albido micans; alæ cinereæ.

Black: head with a bright white covering; frontalia ferruginous, broader and paler towards the feelers; epistoma prominent: eyes bare:

mouth black; palpi tawny: feelers ferruginous; third and following joints black; third black and very convex above, hardly shorter than the second: *chest and breast with a cinereous covering; chest with four very slender black stripes; scutcheon ferruginous: abdomen* deep black, *with whitish reflections on each side of the tip:* thighs with a hoary tinge beneath: *wings gray;* veins black; præbrachial vein forming a very slightly acute angle at its flexure, near which it is much curved inward, straight from thence to the tip; lower cross-vein almost straight, but very slightly curved outward near the tip: alulæ white. Length of the body 4½ lines; of the wings 9 lines.

Pará.

Tachina bomboides, Mas.

Cana; caput antice et subtus albidum; abdomen apice luteo-hirtum; pedes ferruginei, femoribus nigris; alæ cinereæ, basi nigricantes.

Hoary, clothed with whitish hairs: *head whitish in front and beneath*, with a very shallow slightly striated furrow which widens from the eyelets to the base of the feelers; peristoma pale yellow on the inside: proboscis black, ferruginous towards the tip; palpi slender, tawny: feelers black; first and second joints pitchy; third shorter and much deeper than the second, very slightly convex above and below, rounded at the tip: *abdomen covered with black hairs and spines, and towards the tip with bright orange hairs: legs ferruginous; thighs black: wings gray, blackish at the base;* præbrachial vein forming a hardly acute angle at its flexure, and a very obtuse angle nearer its tip; lower cross-vein straight except at the upper end: alulæ white. Length of the body 7 lines; of the wings 16 lines.

East Indies.

Tachina nitida, Mas.

Nigra, cinerascens; caput antice argenteum; abdomen rufum, nigro vittatum; tibiæ rufæ; alæ cinereæ, basi albidæ.

Black: head gray above, thickly clothed with whitish hairs behind and beneath; front region beset with a few stout bristles; frontalia broad, pitchy, very slightly concave; interfrontalia indistinct; *face silvery white;* facialia with a row of bristles which do not extend above the epistoma;

antennaria ferruginous: proboscis black, tip ferruginous: palpi black with tawny tips: feelers black; third joint almost flat above, convex beneath, almost truncated at the tip, shorter and much deeper than the second: *chest with a very slight gray covering: abdomen very shining, dark red, with a black dorsal stripe which does not reach the tip: shanks dark red: wings gray, whitish at the base:* alulæ white; præbrachial vein forming an obtuse angle at its flexure, near which it is very slightly curved inward; lower cross-vein very slightly undulating. Length of the body 7 lines; of the wings 14 lines.

East Indies.

Tachina sobria, Mas.

Fulva; thorax glaucus; abdomen ferrugineum, vittatum, segmentis postice fulvis; femora nigra; alæ subcinereæ.

Head and chest with a tawny covering: head thinly beset above with black bristles, thickly clothed beneath with pale yellow hairs; frontalia ferruginous; interfrontalia indistinct; face silvery white; facialia with a row of bristles which do not extend above the epistoma: proboscis pitchy: palpi tawny, very slender, rather short: feelers black; third joint deep, straight above, convex beneath, truncated at the tip, much shorter than the second joint and about twice its depth: *chest glaucous; scutcheon tawny: abdomen ferruginous with a broad dorsal stripe; hind borders of the segments tawny: legs tawny; thighs black: wings slightly gray;* præbrachial vein forming a right angle at its flexure and an obtuse angle nearer its tip: lower cross-vein undulating: alulæ pale gray, with tawny borders. Length of the body 6 lines; of the wings 12 lines.

East Indies.

Tachina subcinerea, Mas.

Glauca, cinereo-fulvo tecta; scutellum fulvum; abdomen apice luteo hirtum; pedes fulvi, femoribus nigris; alæ subcinereæ, basi fulvæ.

Slightly glaucous, with a grayish tawny covering, clothed with tawny hairs: head gray above and beset with black hairs and bristles, thickly clothed behind and beneath with pale yellow hairs; frontalia dark ferruginous, of equal breadth; interfrontalia indistinct: face pale yellow:

facialia with a row of bristles which do not extend much above the epistoma; feelers ferruginous; third joint black, slightly convex above and beneath, obliquely truncated at the tip, shorter and deeper than the second: *scutcheon tawny: tip of the abdomen clothed with orange hairs: legs tawny; thighs black: wings slightly gray, tawny at the base;* præbrachial vein forming a slightly acute angle at its flexure, near which it forms an obtuse angle; lower cross-vein very slightly waved: alulæ dingy white. Length of the body 6 lines; of the wings 13 lines.

East Indies.

Tachina vittata, Fem.

Nigra; caput fulvescens; thorax fuscescens; scutellum et abdomen ferruginea, hoc flavo vittatum et apice fasciatum; alæ fuscæ, basi subfulvæ.

Black: head with a tawny covering, thickly clothed behind and beneath with pale yellow hairs; frontal region with two thin rows of black bristles; frontalia ferruginous; interfrontalia indistinct; face pale shining yellow; each of the facialia with a row of black bristles not extending above the epistoma, which is very prominent: feelers black; first and second joints ferruginous; third nearly elliptical, very little shorter and much deeper than the second: *chest with a brown covering: scutcheon and abdomen ferruginous, the latter with a slender, pale yellow, dorsal stripe, and near the tip with a broad pale yellow band: wings brown, with a tawny tinge at the base;* veins black, tawny towards the base; præbrachial vein forming a right angle at its flexure, near which it forms an obtuse angle; lower cross-vein very slightly waved: alulæ gray, with yellow borders. Length of the body 5 lines; of the wings 11 lines.

Columbia.

Tachina atra, Mas.

Nigra; caput albidum; thorax canescens, nigro trivittatus; antennæ nigræ, basi et subtus ferrugineæ; alæ cinereæ.

Black: head with a white covering, clothed beneath and behind with whitish hairs; crown gray; frontalia ferruginous, widening from the eyelets to the feelers where they are paler; epistoma very slightly prominent:

eyes bare: palpi tawny: feelers ferruginous; third joint blackish and convex above, a little longer than the second; fourth, fifth and sixth black; fifth about twice the length of the fourth: *chest with a hoary covering, which is interrupted by three slender black stripes:* abdomen armed with black spines: *wings gray;* veins black, tawny towards the base; præbrachial vein forming a right angle at its flexure, curved slightly inward near the flexure, straight from thence to the tip; lower cross-vein almost straight, the curves being very indistinct: alulæ white. Length of the body 5 lines; of the wings 10 lines.

Georgia.

Tachina transversa.

Testacea; scutum auratum, nigro 4-vittatum; abdomen apice nigrum; antennæ nigræ basi ferrugineæ; pedes fulvi; alæ fusco-cinereæ.

Mas. *Testaceous:* head with a whitish covering, clothed behind and beneath with yellow hairs; frontalia pale ferruginous, widening much from the eyelets to the feelers; epistoma not prominent: eyes bare: feelers ferruginous; third and following joints black; third ferruginous at the base: *shield black, with a gilded covering, which is interrupted by four black stripes: abdomen black towards the tip,* armed with black spines: *legs tawny: wings brownish gray;* veins black, tawny at the base; præbrachial vein forming a slightly acute angle at its flexure, and near this an obtuse angle, straight from thence to the tip; lower cross-vein with the two usual curves which are very slight: alulæ pale grayish tawny. Length of the body $4\frac{1}{2}$—$5\frac{1}{2}$ lines; of the wings 10—12 lines.

Brazil.

Tachina obtusa, Mas et Fem.

Testacea; caput flavum; thoracis discus cinereus; abdomen nigro vittatum; antennæ piceæ, basi et subtus fulvæ; alæ cinereæ, basi fulvæ.

Testaceous: head yellow, thickly clothed beneath with pale yellow hairs; front region tawny; front thinly beset with bristles; interfrontalia indistinct; facialia without bristles till near the epistoma, which is prominent; lateralia thinly clothed with pale yellow hairs: *feelers bright tawny; third joint pitchy, tawny beneath,* very convex above, a little shorter than

the second, rounded at the tip; fourth, fifth and sixth joints black; fifth about twice the length of the fourth: *disk of the chest gray: abdomen with a black stripe, which is dilated at the base, and does not extend to the tip: wings gray, tawny at the base;* præbrachial vein forming a hardly acute angle at its flexure, near which it is curved; lower cross-vein almost straight, slightly curved outward at its tip: alulæ dingy white with tawny borders. Length of the body 6 lines; of the wings 12 lines.

New South Wales.

TACHINA DORSALIS, Mas.

Nigra, sat angusta; scutellum rufum; abdomen rufum, albo-micans, nigro vittatum; antennæ fulvæ; alæ cinereæ, basi et ad venas luridæ.

Black, rather narrow, almost cylindrical: head and chest with a cinereous covering; frontal region beset with very few black bristles; frontalia ferruginous, widening towards the feelers; face and under side pale yellow, glossed with white; facialia with a row of bristles which hardly extend above the epistoma; lateralia clothed with short white hairs: *feelers tawny;* third joint very convex above, deepening from the base to the tip which is obliquely truncated, almost as long as the second, and more than twice its depth: *scutcheon red: abdomen red, glossed with white, and having a black dorsal stripe:* legs black: *wings gray, with a lurid tinge at the base and along the borders of the veins;* præbrachial vein forming a slightly acute angle at its flexure, near which it is curved: lower cross-vein very slightly waved: alulæ white. Length of the body 6 lines; of the wings 10 lines.

Java.

TACHINA APICALIS, Mas et Fem.

Nigra; caput album; thoraæ cinereus; scutellum fulvum; abdomen cano tessellatum apice rufum; antennæ basi fulvæ; alæ subcinereæ.

Black: head white, clothed behind and beneath with very pale yellow hairs; crown black; frontalia ferruginous, widening towards the feelers: mouth black: feelers black; first and second joints tawny; third about half the length of the second; straight beneath, very convex above, its height much more than half its length; orifice near the under side, at half

the length; fourth joint a little shorter than the fifth which is not more than one-sixth of the sixth: *chest tinged with gray; scutcheon dull tawny: abdomen tessellated with hoary and black;* tip red: legs black: *wings slightly gray;* veins pitchy, ferruginous towards the base and along the fore border; præbrachial vein forming a slightly acute angle at its flexure, near which it is much bent inward; lower cross-veins with two curves, the lower inward, much less distinct than the upper which is outward: alulæ white: halteres tawny. Length of the body 5 lines; of the wings 10 lines.

~~Columbia.~~ Cal. [ansten]

Tachina fulva, Mas.

Testacea; caput flavum; scutellum fulvum; abdomen piceum, segmentis fulvo fasciatis; antennæ piceæ; pedes fulvi, femoribus nigris; alæ subcinereæ, basi et ad costam fulvæ.

Head and thorax with a testaceous covering: head pale yellow and thickly clothed with yellow hairs beneath; face and epistoma whitish, shining: proboscis black with a ferruginous tip: palpi pale tawny, very slender: *feelers pitchy;* third joint very convex above and beneath, almost truncated at the tip, much shorter than the second and about twice its depth; fourth, fifth and sixth tawny: *scutellum tawny: abdomen pitchy, with a broad, bright, tawny band on the fore border of each segment;* a few black spines on each hind border: *legs tawny; thighs black,* with a testaceous covering: *wings pale gray, with a tawny tinge at the base and along part of the fore border;* præbrachial vein forming a right angle at its flexure; lower cross-vein slightly waved: alulæ whitish with yellow borders. Length of the body 5 lines; of the wings 12½ lines.

East Indies.

Tachina convecta.

Canescens; thorax nigro quadrivittatus; pedes nigri; alæ limpidæ.

Black, with a hoary covering, beset with bristles: frontalia pitchy, slightly widening from the eyelets to the feelers; facialia of the face without bristles; epistoma not prominent: *third joint of the feelers about four times the length of the second, divided into two parts which are equal in length, slightly curved, and converge towards each other at their tips;* fifth

joint stout, very long; sixth short, stout except at the tip: *chest with four black stripes:* legs black: *wings colourless;* veins black, tawny at the base; præbrachial vein forming a very obtuse angle at its flexure, beyond this it is very slightly inclined inward, and ends on the tip of the wing, where it approaches very near the cubital vein; lower cross-vein straight: alulæ white: halteres tawny, with pitchy knobs. Length of the body 1½ line; of the wings 3 lines.

United States.

Tachina exul, Fem.

Canescens; caput album; abdomen cinereum; antennæ articulo 3o basi fulvo; pedes nigri; alæ albidæ.

Black, with a hoary covering: head with a white covering; frontalia whitish fawn-colour, slightly widening towards the feelers; facialia without bristles; epistoma not prominent: mouth and palpi black: *feelers pitchy;* first and second joints extremely short; *third tawny at the base, reaching the epistoma, divided into two parts, which are linear, rounded at the tips, and of equal length; upper part bent upward;* fourth joint very short; fifth slightly bent, tawny at the base, full four times the length of the fourth; sixth stout, lanceolate, much longer than the fifth: *abdomen obconical, cinereous,* a little shorter and broader than the chest: *legs black: wings whitish;* veins tawny; præbrachial vein forming a very obtuse angle at its flexure, hardly bent inward from thence to its tip, which ends at very little in front of the tip of the wing; lower cross-vein almost straight, very remote from the border: halteres tawny. Length of the body 1¾ line; of the wings 3½ lines.

United States.

Tachina insolita, Fem.

Nigra; alæ cinereæ, basi flavæ.

Black: head prominent and angular in front above the feelers, with a white oblique stripe on each side; frontalia striated; facialia without bristles; epistoma slightly prominent: eyes bare: palpi black, slender: *feelers black; second joint tawny at the tip;* third full twice the length of the second, straight above, slightly convex beneath, tawny above at the

base, not reaching the epistoma; fourth, fifth, and sixth tawny; fourth and fifth short; *sixth very stout*, shorter than the third: *abdomen almost bare*, broader and a little longer than the chest: *wings gray, yellow towards the base;* veins tawny, black towards the tips; præbrachial vein forming a right angle at its flexure, near which it is bent inward, straight from thence to the tip; lower cross-vein with the two curves which are very slight: alulæ yellow. Length of the body 6 lines; of the wings 11 lines.

United States.

Tachina grandis.

Nigra, cinerascens; caput albidum; thorax antice nigro quadrivittatus; scutellum ferrugineum; antennæ nigræ, basi et subtus fulvæ; pedes nigri; alæ subcinereæ, basi luteæ, ad venas fuscæ.

Fam. *Microceratæ;* Gen. *Nemoræa.* Fem. *Black, with a gray covering: head with a whitish covering*, clothed behind and beneath with pale yellow hairs: frontalia deep black, widening from the eyelets to the feelers; face tawny, with a silvery white covering; epistoma slightly prominent; lateralia deep red; facialia of the face bristly along half the length from the base: mouth pitchy; palpi tawny: *feelers tawny; third joint black above*, linear, darker towards the tip which is rounded, near twice the length of the second joint; orifice a little before the middle of the length, very near the under side; bristle black; fourth and fifth joints very short; sixth minutely pubescent: *fore part of the shield with four black stripes; scutcheon ferruginous: legs black;* claws tawny with black tips; onychia yellow: *wings pale gray, brown about the borders of the veins, luteous at the base;* veins pitchy, luteous at the base; præbrachial vein forming a slightly acute angle at its flexure, near which it is curved inward, almost straight from thence to the tip; lower cross vein very indistinctly curved inward near its base, distinctly curved outward near its tip: alulæ with a pale yellow tinge, their borders brighter: halteres yellow. Length of the body 7½ lines; of the wings 18 lines.

East Indies.

Tachina australis, Mas.

Nigra ; caput auratum, subtus canum ; thorax canescens, nigro quadrivittatus ; abdomen albo-micans, lateribus basi ferrugineum ; antennæ basi ferrugineæ ; tibiæ posticæ ciliatæ ; alæ cinereæ, basi obscuriores.

Fam. *Faunidæ ;* Gen. *Phryno ?* *Black : head with a gold-colour covering, hoary beneath*, clothed behind and beneath with pale yellow hairs ; facialia of the face without bristles ; epistoma not prominent : eyes bare : mouth and palpi pitchy : *feelers black ; first and second joints ferruginous ;* third linear, almost truncated at the tip, not reaching the epistoma, about twice the length of the second joint : *chest with a hoary covering which is interrupted by four slender stripes ; scutcheon ferruginous : abdomen with white reflections about the fore borders of the segments ; second and third segments partly ferruginous on each side :* legs black ; *hind-shanks fringed : wings gray, darker at the base ;* veins black, pitchy towards the base and along the fore border ; præbrachial vein forming a hardly acute angle at its flexure, slightly curved inward between this and its tip ; lower cross vein with two equally slight curves, the lower inward, the other outward : alulæ dingy white : halteres tawny. Length of the body 6 lines ; of the wings 12 lines.

New South Wales.

Tachina squamata.

Atra ; caput apud oculos auratum ; thorax cervino quadrivittatus ; abdomen fusiforme, lateribus auratum ; pedes sat longi ; alæ cinereæ, venis transversis basi et ad discum nigro marginatis.

Mas. *Deep black*, narrow : *head with a pale gilded covering along the eyes ;* frontalia widening from the eyelets to the feelers ; facialia without bristles except at the base ; epistoma not prominent : eyes bare : palpi black : feelers black ; third joint straight above, slightly convex beneath, not nearly reaching the epistoma, more than twice the length of the second : sixth pubescent, stout towards the base, bare towards the tip, more than twice the length of the third : *chest with four fawn-coloured stripes : abdomen spindle-shaped*, a little longer than the chest, *with pale gilded reflections on each side : legs rather long : wings gray ;* veins black ; *middle cross-vein and those towards the base clouded with black ;* præbrachial vein

forming a hardly acute angle at its flexure, near which it is much bent inward, almost straight from thence to the tip; lower cross-vein with the two usual curves which are slight: alulæ yellow, large. Length of the body 5 lines; of the wings 11 lines.

Columbia.

Tachina concisa.

Atra; caput album; thorax albido quadrivittatus; scutellum apice albidum; abdomen albido micans, lateribus et apice luteum; alæ subcinereæ.

Fem. *Deep black: head with a white covering*, clothed beneath and behind with white hairs; a broad, black band on the crown, and a black spot on each side of the face; frontalia broad, linear, pitchy, ferruginous towards the feelers; facialia without bristles: palpi and feelers black: *shield with a hoary disk, and with four short whitish stripes in front, each pair connected behind by a band: scutcheon whitish towards the tip: abdomen with whitish reflections, luteous on each side and at the tip:* thighs tinged with white: *wings slightly gray;* veins black, tawny towards the base; præbrachial vein forming a right angle at its flexure, curved inward near the flexure, straight from thence to the tip; lower cross-vein with the two usual curves, the upper one more distinct than the lower: alulæ large, yellow, with white disks. Length of the body 3 lines; of the wings 7 lines.

Cape.

Tachina remota.

Nigra; caput albidum; thorax cinereus, nigro quinquevittatus; scutellum ferrugineum; abdomen lateribus basi rufum; antennæ basi et subtus ferrugineæ; alæ subcinereæ.

Fam. *Faunidæ;* Gen. *Phryno?* *Black: head with a white covering*, clothed beneath and behind with white hairs; crown gray; frontalia dark ferruginous, almost linear; facialia of the face ferruginous, beset with bristles along half the length from the base; epistoma pale yellow, very slightly prominent: eyes hairy: palpi tawny: feelers black; first and second joints ferruginous; third ferruginous beneath at the base, almost linear, truncated at the tip, a little deeper than the second and much more

than twice its length; sixth slender, much longer than the third: *chest and breast with a gray covering; chest with five black stripes: scutcheon ferruginous: abdomen oval*, a little shorter than the chest, *red on each side towards the base: wings slightly gray;* veins black, *tawny at the base;* præbrachial vein forming a right angle at its flexure, near which it is inclined inward and is straight from thence to the tip; lower cross-vein with the two usual curves, the upper one very slight: alulæ white. Length of the body 4½ lines; of the wings 9 lines.

New South Wales.

TACHINA BASALIS.

Nigro-ænea, canescens; caput argenteum; thorax quadrivittatus; abdomen albo sex-maculatum; antennæ basi et subtus fulvæ; genua ferruginea; alæ sublimpidæ.

Bronze-black with a hoary covering: head silvery white, clothed behind and beneath with white hairs; frontalia deep black, triangular, widening very much towards the feelers; antennaria tawny; lateralia ferruginous: mouth black, its tip and the palpi luteous: feelers black; first, second and base of the third joint tawny; third joint full four times the length of the second, deepening from the base to the tip which is slightly rounded; orifice very near the under side, a little nearer to the base than to the tip: *chest with four bronze-black stripes*, the inner pair very slender: *abdomen* cylindric-obconical, longer and narrower than the chest, *tessellated with white which forms three large spots on each side:* legs black; thighs with a hoary tinge; *knees ferruginous: wings almost colourless;* veins black, tawny at the base, their borders indistinctly tinged with pale brown; præbrachial vein forming a right angle at its flexure, near which it is curved inward, and is straight from thence to the tip; lower cross-vein with two slight curves, the lower inward, the upper outward and very indistinct: alulæ white: halteres yellow. Length of the body 5½ lines; of the wings 10 lines.

Tachina lucifera.

Nigra ; caput argenteum ; thorax albidus, nigro quadrivittatus ; abdominis segmenta albo fasciata ; alæ subcinereæ, basi et ad costam obscuriores.

Fam. *Faunidæ.* Allied to *Lydella.* Fem. *Black : head with a silvery covering*, clothed beneath and behind with white hairs ; frontalia deep black, narrow, slightly widening towards the feelers, beset along each side with black bristles ; facialia without bristles ; epistoma not prominent : eyes bare : palpi tawny : feelers black ; third joint linear, rounded at the tip, nearly reaching the epistoma, not deeper than the second and less than twice its length ; sixth slender, minutely pubescent, very much longer than the third : *chest with a whitish covering which is interrupted by four black stripes : abdomen* obconical, not longer than the chest, *with a white band on the fore border of each segment : wings slightly gray, darker at the base and along the fore border ;* veins black ; præbrachial vein forming a right angle at its flexure, curved inward from thence to the tip : lower cross-vein almost straight : alulæ white. Length of the body $3\frac{1}{2}$ lines ; of the wings 7 lines.

Tachina ornata.

Atra ; caput argenteum ; thorax albo quadrivittatus et quadrimaculatus ; abdomen albo tessellatum, lateribus et subtus fulvum ; alæ subcinereæ.

Fam. *Faunidæ.* Fem. *Deep black : head with a silvery white covering, with two large, black spots on each side*, thickly clothed behind and beneath with white hairs ; frontalia deep pitchy black, slightly widening towards the feelers ; facialia of the face without bristles except at the base : epistoma white, not prominent : eyes hairy : mouth pitchy, partly ferruginous ; palpi black, long, very slender : feelers black, third joint rather deep, almost truncated at the tip, nearly reaching the epistoma, less than twice the length of the second ; fifth joint full twice the length of the fourth ; sixth long, slender, bare : *fore part of the chest adorned on each side with two white stripes which are united behind by a white band ; four white oblong spots on the hind part of the shield ; tip of the scutcheon, sides and breast white : abdomen* obconical, *tessellated with white, tawny along each side*, a little longer than the chest ; under side tawny with a black

stripe, ferruginous towards the tip: legs black; trochanters ferruginous; thighs tinged with gray; middle legs rather long: *wings very slightly gray;* veins black, pitchy at the base; præbrachial vein forming an almost right angle at its flexure, near which it is curved inward, straight from thence to the tip which is very near the tip of the fourth vein; lower cross-vein with the two usual curves which are slight: alulæ luteous with whitish disks: halteres yellow. Length of the body 4½ lines; of the wings 8 lines.

Cape.

TACHINA ALBIFRONS.

Nigra, canescens; caput argenteum; thorax nigro quadrivittatus; scutellum testaceum; abdomen cano-micans, lateribus basi ferrugineum; tibiæ piceæ; alæ sublimpidæ.

Fam. *Agridæ;* Gen. *Pales?* Fem. *Black, with a hoary covering: head with a silvery white covering;* frontalia pitchy, striated, linear; a row of bristles along each side; epistoma yellow, slightly prominent; facialia without bristles along the face, with bristles on each side of the epistoma and of the peristoma; lateralia ferruginous: eyes bare: mouth pitchy; palpi tawny; feelers black; second joint reddish at the tip; third linear, reaching the epistoma, nearly thrice the length of the second, reddish at the base: *chest with four black stripes;* middle pair slender; *scutcheon testaceous: abdomen* obconical, not longer than the chest, *with hoary reflections, ferruginous on each side towards the base:* legs black; thighs with a hoary tinge; *knees ferruginous; shanks pitchy: wings almost colourless;* veins black, tawny at the base; præbrachial vein forming an almost right angle at its flexure, slightly inclined inward from thence to its tip, which approaches near the tip of the cubital vein; lower cross-vein almost straight, the two usual curves being very indistinct: alulæ white: halteres tawny. Length of the body 4½ lines; of the wings 9 lines.

United States.

Blepharipeza leucoptera Wd. [Austens]

TACHINA LATIFRONS.

Cinerea ; thorax nigro quinquevittatus ; abdomen atrum ; antennæ et pedes nigra, maris tibiæ posticæ ciliatæ ; alæ cinereæ, basi nigro-fuscæ.

Fam. *Faunidæ ;* Gen. *Blepharipeza. Gray :* head above beset with black bristles, having a black stripe which is bordered with white ; fore part and under side white ; facialia of the face with four bristles towards the epistoma ; mouth brown ; palpi tawny : feelers black ; third joint more than twice the length of the second : *chest with five indistinct black stripes : abdomen deep black, thickly beset with black spines :* legs black ; hind-shanks of the male fringed with black hairs : *wings gray, blackish brown at the base ;* præbrachial vein forming an almost right angle at its flexure : alulæ dark gray. Length of the body $5\frac{1}{2}$ lines ; of the wings 13 lines.

South America.

Nearly allied to *Hystricia.*

TACHINA NIGRORUFA.

Nigro-cinerea ; caput antice et subtus albidum ; scutellum et abdomen ferruginea ; alæ cinereæ, basi fuscæ.

Grayish black : head whitish in front and beneath ; frontalia pitchy ; facialia of the face beset with bristles along nearly half the length from the base : mouth towards the tip and palpi ferruginous : *scutellum and abdomen dark ferruginous,* the latter beset with spines : *hind shanks of the male fringed : wings gray, dark brown at the base :* alulæ dark gray. Length of the body 6 lines ; of the wings 15 lines.

Columbia.

TACHINA ATRATA. Belvosia

Nigra ; caput antice auratum ; thorax cinereus, nigro quadrivittatus, lateribus et scutello ferrugineis ; abdomen atrum, apice cinereum ; antennæ ferrugineæ ; alæ fuscæ, basi ferrugineæ.

Fam. *Faunidæ ;* Gen. *Belvosia. Black :* frontal region ferruginous : *face gilded ;* facialia beset with bristles along the whole length : palpi tawny :

antennæ ferruginous; third joint nearly twice the length of the second, almost linear, not reaching the epistoma, slightly decreasing in breadth from the base to the tip which is rounded; bristle pitchy, stout, bare, very much longer than the third joint: *chest gray, with four slender black stripes; sides and scutcheon ferruginous: abdomen deep black, tip gray: wings* brown, ferruginous at the base; præbrachial vein forming an obtuse angle at its flexure, slightly curved from thence to its tip. Length of the body 6 lines; of the wings 14 lines.

Brazil.

Tachina contermina, Fem.

Nigra; caput ferrugineum, antice luteum; thorax cinereus, nigro quadrivittatus; abdomen atrum, apice cinereum; antennæ piceæ, basi ferrugineæ; alæ fuscæ, basi ferrugineæ.

Black: *head ferruginous*: stemmatic part and sides of the frontal region pitchy: *face luteous: feelers pitchy; first and second joints partly ferruginous;* third a little more than twice the length of the second: *chest gray, with four slender black stripes: abdomen deep black with a gray tip.* Length of the body 6 lines; of the wings 14 lines.

a. South America.

Tachina basalis.

Cinereus; thorax nigro quadrivittatus; abdomen nigrum, apice canum; antennæ piceæ, basi ferrugineæ; alæ fuscæ, basi subluridæ.

Black: *head tinged with gray;* frontalia ferruginous; face white: facialia beset with bristles which extend about two-thirds of the length: *feelers pitchy; first and second joints partly ferruginous;* third full twice the length of the second: *chest gray with four slender black stripes; scutcheon pitchy: abdomen with a hoary tip: wings brown, darker and with a lurid tinge towards the base which is ferruginous.*

Fem.? Front and frontalia black, with a hoary tinge; facialia beset with bristles which hardly extend along half the length: *abdomen with a dark gray band near the tip.*

Length of the body 7—8 lines; of the wings 17—18 lines.

South America.

Tachina socia, Mas.

Nigra; caput antice argenteum; thorax cinereus, nigro quadrivittatus; scutello piceo; antennæ piceæ, basi ferrugineæ; alæ fuscæ, basi ferrugineæ.

Black: head thickly clothed beneath with white hairs: frontal region pitchy: frontalia ferruginous; *face silvered;* facialia with bristles along the whole length except near the front: *antennæ pitchy; first and second joints partly ferruginous;* third a little more than twice the length of the second: *chest gray, with four slender black stripes: scutcheon pitchy: wings brown, lurid towards the base which is ferruginous;* præbrachial vein forming an obtuse angle at its flexure, slightly curved from thence to its tip; lower cross-vein much waved.

Fem.? Vertex ferruginous: frontalia pitchy, indistinct: face gilded: mediana reddish: lateralia thinly clothed with short black hairs: first and second joints of the feelers ferruginous; third full four times the length of the second: abdomen with a gray band on the fore border of the penultimate segment.

Length of the body 6½—7 lines; of the wings 15—16 lines.

Brazil.

Tachina fuliginosa, Mas.

Cinerea; thorax nigro quadrivittatus; scutellum piceum; abdomen nigrum, apice cinereum; antennæ piceæ; alæ nigro-fuscæ, basi ferrugineæ.

Black: *head tinged with gray;* frontalia ferruginous; *face tawny, silvered;* facialia with a row of bristles which do not extend along half the length from the epistoma: *feelers pitchy;* third joint less than twice the length of the second: *chest gray, with four slender black stripes; scutcheon pitchy: abdomen with a gray tip: wings blackish brown, especially towards the base which is ferruginous;* lower cross-vein very slightly waved: alulæ dark brown. Length of the body 5½ lines; of the wings 13 lines.

——— ?

TACHINA PROXIMA, Mas. Phorocera

Nigra; caput ferrugineum; scutellum piceum; pectus cinereum; abdomen lateribus basi piceum, apice cinereo et albido fasciatum; antennæ piceæ, basi ferrugineæ; alæ fuscæ, basi ferrugineæ.

Black: *head ferruginous;* frontalia pitchy; *face whitish tawny;* feelers pitchy; first and second joints ferruginous; third full four times the length of the second: chest quite black; *scutcheon pitchy:* breast gray: *abdomen pitchy on each side towards the base, with two bands near the tip; first slender and gray; second broad and whitish:* wings brown, lurid towards the base which is ferruginous; lower cross-vein slightly waved. Length of the body 5½ lines; of the wings 13 lines.

Pará.

TACHINA TINCTA. Phorocera Lauseii?

Nigra; caput auratum; thorax albus nigro quadrivittatus; abdomen cano-micans, apice auratum; alæ cinereæ.

Fem. Black: *head with a bright gilded covering;* frontalia deep black, linear; face white; facialia beset with bristles along the whole length; epistoma not prominent: eyes hairy: palpi black: feelers black; third joint slender, linear, rounded at the tip, almost reaching the epistoma, full four times the length of the second; sixth bare, slender, rather stout, very much longer than the third: *chest with a white covering, which is interrupted by four black stripes: abdomen* obconical, *suffused with hoary reflections; tip gilded:* legs black: *wings gray;* veins black; præbrachial vein forming a very slightly obtuse angle at its flexure, near which it is slightly bent inward, straight from thence to the tip; lower cross-vein slightly bent inward near the base: alulæ dingy white. Length of the body 5 lines; of the wings 10 lines.

Brazil. Trinidad, bred from Brassolis sophorae by Ulrich, 1924. (Gma det.)

Tachina imbuta, Mas.

Cervina ; caput argenteo-auratum ; thorax nigro quinquevittatus ; pectus cinereum ; abdomen nigro vittatum, segmentis nigro fasciatis ; antennæ nigræ, basi ferrugineæ ; tibiæ ferrugineæ ; alæ subcinereæ.

Fam. *Faunidæ;* Gen. *Phryno. Dark fawn-colour*, clothed with black hairs and bristles: *head pale gold-colour*, clothed behind and beneath with pale yellow hairs; frontalia deep black; front beset with long black bristles; posterior region with a fringe of short black bristles; face tawny; foveæ and sides silvery white; facialia without bristles except near the epistoma: eyes hairy, with small facets: mouth ferruginous; palpi tawny: feelers black; first and second joints ferruginous; third tinged with gray, linear, rather deep, slightly rounded at the tip, extending to the epistoma, about six times the length of the second, with an orifice on the outer side near the lower border at two-thirds of the length; fourth and fifth very short; sixth stout towards the base, less than twice the length of the third: *chest with five slender black stripes:* breast gray: *abdomen* obconical, very little longer than the chest, *with a black middle stripe, and with a black band* on the hind border of each segment: legs black, tinged with gray; *shanks ferruginous: wings slightly gray*, rather darker at the base; veins black, ferruginous at the base; præbrachial vein slightly curved inward, rounded and forming an almost right angle at the flexure from thence to the tip; lower cross-vein with two slight curves, the lower inward, the upper outward: alulæ whitish, with pale buff borders. Length of the body 4½ lines; of the wings 9 lines.

Cape.

Tachina densa.

Nigra ; caput canum ; thorax cinereus ; scutellum ferrugineum ; abdomen cinereo-micans, basi subtus ferrugineum ; antennæ basi rufæ ; pedes ferruginei, tarsis nigris ; alæ subcinereæ.

Fam. *Faunidæ. Fem.* Black, thick: *head with a hoary covering;* frontalia deep black, linear; facialia tawny, without bristles except at the base; epistoma yellow, hardly prominent: eyes hairy: palpi tawny: feelers

black; first and second joints red; third slender, linear, rounded at the tip, less than thrice the length of the second; sixth very much longer than the third, stout towards the base: *chest and breast with a gray covering; scutcheon ferruginous: abdomen* obconical, *with gray reflections*, a little broader but not longer than the chest, *ferruginous beneath towards the base: legs ferruginous; feet black: wings pale gray*, veins black, tawny towards the base; præbrachial vein forming a hardly obtuse angle, beyond which it is very slightly bent inward at its flexure; lower cross-vein slightly bent inward at one-third of its length from the base: alulæ white: halteres tawny. Length of the body 4½ lines; of the wings 9 lines.

New South Wales.

Tachina hebes.

Nigra; caput albidum, antice ferrugineum; thorax canus, nigro quadrivittatus; scutellum ferrugineum; abdomen albo tessellatum; antennæ basi ferrugineæ; tibiæ ferrugineæ; alæ subcinereæ, basi fulvæ.

Fam. *Faunidæ;* Gen. *Phryno. Fem.* Black: *head with a whitish covering*, clothed behind and beneath with whitish hairs, *ferruginous in front;* frontalia pitchy, slightly widening towards the feelers; facialia and epistoma tawny, the latter slightly prominent; facialia of the face beset with bristles along one-fourth of the length from the base: eyes hairy: mouth pitchy; palpi tawny: feelers black; first and second joints ferruginous; third linear, almost truncated at the tip, reaching the epistoma, near thrice the length of the second: *chest with a hoary covering which is interrupted by four black stripes; scutcheon ferruginous: abdomen tessellated with white:* legs black; *shanks ferruginous: wings very slightly gray, with a tawny tinge at the base;* veins black, tawny towards the base; præbrachial vein forming a hardly obtuse angle at its flexure, beyond which it is very slightly curved inward; lower cross-vein much curved inward: alulæ white: halteres tawny. Length of the body 4½ lines; of the wings 8½ lines.

Tasmania.

Tachina addita.

Nigra, cinerascens; caput argenteum; abdominis segmenta cano fasciata; alæ subcinereæ, ad costam obscuriores.

Fam. *Agridæ;* Gen. *Pales?* Fem. Black: *head with a silvery white covering*, clothed beneath and behind with white hairs; facialia deep dark red, widening at each end; facialia beset with bristles along the whole length; epistoma yellow, not prominent: eyes hairy: proboscis and *palpi ferruginous:* feelers black; third joint linear, truncated at the tip, nearly reaching the epistoma, about four times the length of the second; fifth rather long; sixth minutely pubescent, stout till near the tip, not longer than the third: *chest and abdomen with a slight cinereous covering: abdomen* elliptical, not longer than the chest, *with a hoary band on the fore border of each segment: wings slightly gray, darker along the fore border;* veins black, tawny at the base; middle cross-vein clouded with black; præbrachial vein forming a hardly obtuse angle at its flexure, near which it is bent inward, almost straight from thence to the tip, which is very near the tip of the cubital vein; lower cross-vein indistinctly clouded, hardly bent inward: alulæ white: halteres tawny. Length of the body 2¼ lines; of the wings 4½ lines.

United States.

Tachina atriventris, Mas.

Nigra; caput argenteum; thorax canus, nigro quadrivittatus; abdomen atrum; antennæ piceæ; alæ sublimpidæ, basi cinereæ.

Fam. *Microceratæ;* Gen. *Nemoræa.* Resembles *Hystricia.* Black: *head with a silvery white covering;* frontalia deep black, widening from the eyelets to the feelers; antennaria red; facialia of the face with bristles along one-fourth of the length from the base; epistoma not prominent: mouth pitchy; palpi tawny: *feelers pitchy*, tinged with gray; first and second joints with ferruginous tips; third joint slightly deepening from the base to the tip which is rounded, almost reaching the epistoma, about twice the length of the second joint; two little orifices on the middle of each outer side: *chest with a hoary covering which is interrupted by four slender black stripes: abdomen* deep black, *thickly armed with spines:*

wings almost colourless, gray at the base; veins black; præbrachial vein forming a slightly obtuse angle at its flexure, near which it is a little curved inward, almost straight from thence to the tip; lower cross-vein with two very slight curves, the lower inward, somewhat deeper than the other which is very indistinct: alulæ gray with lurid borders: halteres ferruginous. Length of the body 5 lines; of the wings 11 lines.

Madras or Bombay.

Tachina umbrosa.

Cinerea; thorax nigro quadrivittatus; scutellum fulvum; abdomen canopiceum; antennæ nigræ, basi ferrugineæ; tibiæ tarsique nigra; alæ cinereæ, basi subfuscæ.

Fam. *Faunidæ;* Gen. *Eurigaster.* Allied to *T. nigricornis*, Wied. Gray: head clothed behind and beneath with whitish hairs: frontal region with a tawny covering, and with a few black bristles on each side; frontalia pitchy; *face gilded;* foveæ white; facialia without bristles; mediana ferruginous; lateralia gray, with black hairs: proboscis and palpi pitchy: feelers black; first and second joints ferruginous; third linear, almost truncated at the tip, as deep as the second and near thrice its length: *chest with four indistinct slender black stripes; scutcheon tawny: abdomen beneath and thighs somewhat pitchy* and with a hoary tinge; shanks and feet black: *wings gray, brownish at the base;* præbrachial vein forming a slightly obtuse angle at its flexure, beyond which it is slightly curved; lower cross-vein very slightly undulating. Length of the body 7 lines; of the wings 14 lines.

East Indies.

Tachina dubia, Fem.

Nigra; caput argenteum; thorax cinereus, utrinque fulvus, nigro quadrivittatus; scutellum fulvum; abdomen fulvum, albo-micans, nigro vittatum; pedes fulvi, tarsis nigris; alæ subcinereæ, ad venas fuscæ.

Fam. *Faunidæ;* Gen. *Phryno?* Black: *head tawny, with a silvery white covering,* clothed behind and beneath with pale yellow hairs; *crown black with a pale gilded covering;* frontalia reddish-pitchy, widening towards the feelers; frontalia without bristles: epistoma slightly promi-

nent: eyes hairy: mouth pitchy; palpi tawny: feelers black; second joint ferruginous; third linear, rather deep, almost truncated at the tip, not reaching the epistoma, near thrice the length of the second; orifice in the middle of the length, a little nearer the lower border than the upper: *chest with a cinereous or slightly gilded covering, tawny on each side, with four slender black stripes; scutcheon tawny: abdomen tawny with white reflections, darker at the tip, with a black dorsal stripe which is widened at the base and on the hind border of each segment; a black band along the hind border of the third segment: legs tawny; feet black;* claws fringed, tawny towards the base; onychia luteous: *wings pale gray, tinged with brown along the borders of the veins;* veins black, tawny at the base; præbrachial vein forming a slightly obtuse angle at its flexure, from whence it is almost straight with the exception of a very slight inward curve at one-third of its length; lower cross-vein with two curves, the lower inward, deeper than the other which is outward: alulæ whitish, with pale yellow borders. Length of the body $4\frac{1}{2}$ lines; of the wings 10 lines.

Cape.

Tachina adusta.

Cervina; caput argenteum; thorax fusco quinquevittatus; abdomen fulvum, maculis trigonis nigris vittatum, flavo fasciatum; antennæ et pedes nigra; alæ cinereæ, basi fulvæ, apud venas fuscæ.

Fam. *Faunidæ;* Gen. *Phryno.* Mas. *Pale fawn-colour: head with a silvery white covering,* clothed beneath and behind with pale yellow hairs; frontalia pitchy, linear; epistoma hardly prominent; facialia beset with bristles along the face and along the peristoma: eyes bare: mouth pitchy; *palpi tawny:* feelers black; third joint slender, reaching the epistoma, full six times the length of the second; sixth joint stout, hardly longer than the third joint: *chest with five interrupted brown stripes: abdomen* obconical, *tawny,* a little longer than the chest; *a triangular black spot on the hind border of each segment; third and fourth segments yellow with black hind borders:* legs black: *wings gray, tawny at the base, brown beneath the fore border and along the borders of the veins;* veins black, tawny towards the base; præbrachial vein forming a slightly obtuse angle at its flexure, near which it is indistinctly inclined inward, almost straight from thence to the tip which is very near the tip of the cubital vein; lower

cross-vein with the two usual curves, the inward one distinct, the outward one scarcely perceptible: alulæ yellowish, with tawny borders: halteres tawny. Length of the body 6 lines; of the wings 12 lines.

East Indies.

Tachina alta.

Nigra, crassa; caput album; thorax cinereus; scutellum rufum, basi nigrum; abdomen cinereo-micans; antennæ et pedes nigra; alæ subcinereæ.

Fam. *Faunidæ;* Gen. *Pales.* Black, rather thick: *head with a white covering;* frontalia ferruginous; facialia without bristles except at the base; epistoma not prominent; lateralia pale tawny: eyes bare: *palpi tawny:* feelers black; third joint linear, rounded at the tip, reaching the epistoma, about six times the length of the second; sixth slender, very much longer than the third: *chest with a cinereous covering; scutcheon red, black at the base: abdomen* obconical, a little longer than the chest, *with cinereous reflections: wings slightly gray;* veins black, tawny at the base; præbrachial vein forming a slightly obtuse angle at its flexure, beyond which it is slightly curved inward; lower cross-vein with a very slight outward curve in the middle: alulæ whitish. Length of the body 4½ lines; of the wings 8 lines.

Madras or Calcutta?

Tachina picea, Mas.

Nigra; caput album; thorax albo vittatus; scutellum ferrugineum; abdomen albo-micans, lateribus ferrugineum; antennæ nigræ, basi subtusque ferrugineæ; pedes nigri; alæ subcinereæ, basi subfuscæ.

Fam. *Faunidæ;* Gen. *Phryno.* Black: *head adorned with a white covering;* frontalia deep brown, linear; interfrontalia dull black; facialia beset with bristles at each end: eyes hairy: mouth pitchy; *palpi tawny,* with a white covering towards their tips: *feelers ferruginous;* third joint linear, rounded at the tip, black above, not reaching the epistoma, full twice the length of the second: chest striped with white? *scutcheon dark ferruginous: abdomen ferruginous on each side, with white reflections on the*

fore borders of the segments : legs black : *wings slightly gray, brownish at the base ;* veins black, ferruginous at the base ; præbrachial vein forming an obtuse angle at its flexure, very slightly curved inward from thence to its tip ; lower cross-vein with two slight curves, the lower inward, deeper than the other which is outward : alulæ white : halteres tawny. Length of the body 5½ lines ; of the wings 10 lines.

Columbia.

Tachina umbrifera.

Nigra, aurata ; thoracc nigro quadrivittatus ; abdomen fulvum, nigro vittatum fasciatum et terminatum ; antennæ et pedes nigra ; alæ fuscæ.

Fam. *Faunidæ ;* Gen. *Lydella.* Mas. Black : *head and chest with a gilded covering ;* frontalia deep black, widening from the eyelets to the feelers, beset with bristles along each side ; facialia without bristles except at the base ; epistoma not prominent : eyes bare : *palpi tawny :* feelers black ; third joint linear, almost truncated at the tip, not reaching the epistoma, as deep as the second and about twice its length ; sixth slender, more than twice the length of the third : *chest with four black stripes ;* inner pair slender ; outer pair broad : *abdomen tawny,* obconical, a little longer than the chest, *with a black stripe, black bands on the hind borders of the segments and a black tip : wings dark brown, gray along the hind borders towards the base ;* veins black, tawny at the base ; præbrachial vein forming an obtuse angle at its flexure, almost straight from thence to its tip ; lower cross-vein with the two curves which are rather slight : alulæ and halteres yellow. Length of the body 4 lines : of the wings 8 lines.

Brazil.

Tachina compacta, Fem.

Nigra, aurata ; caput antice et subtus argenteum ; scutellum margine postico ferrugineum ; abdomen nigro vittatum et fasciatum, basi nigrum, subtus canum ; antennæ ferrugineæ ; pedes nigri ; alæ subcinereæ.

Fam. *Faunidæ ;* Gen. *Athrycia ?* Black, *with a pale gold covering which decreases in brightness from the head to the abdomen : head*

silvery, white in front and beneath, clothed beneath with white hairs; frontalia deep black, narrow, linear; facialia without bristles except at the base; epistoma very slightly prominent: eyes bare: mouth pitchy; palpi tawny: *feelers ferruginous; third joint pitchy towards the tip*, more than twice the length of the second, hardly reaching the epistoma; sixth joint black: *scutcheon slightly ferruginous along the hind border: abdomen* obconical, not longer than the chest, *with a slender black stripe; first segment black; second and third black along the hind borders; under side hoary, partly black;* legs black; thighs with a white covering: *wings very slightly gray;* veins black, tawny towards the base; præbrachial vein forming an obtuse angle at its flexure, very slightly curved inward from thence to its tip; lower cross-vein curved inward near the base: alulæ white. Length of the body 3 lines; of the wings 7 lines.

Brazil.

Tachina interrupta, Fem.

Cana, elliptica; caput antice auratum; thorax nigro quadrivittatus; abdomen lateribus piceum, apice ferrugineum; antennæ nigræ, basi ferrugineæ; pedes nigri, tibiis piceis; alæ subcinereæ, basi subtestaceæ.

Fam. *Faunidæ;* Gen. *Phryno. Body elliptical, with a hoary covering: head rather prominent, bright gold-colour in front*, clothed behind and beneath with white hairs; frontalia pitchy, distinctly striated, widening from the eyelets to the feelers; facialia ferruginous, without bristles except at the base; epistoma hardly prominent; mouth pitchy; *palpi tawny:* feelers black; first and second joints ferruginous; third slender, linear, rounded at the tip, nearly reaching the epistoma, about thrice the length of the second: *chest with four interrupted black stripes: abdomen pitchy on each side; tip ferruginous:* legs black; thighs with a hoary tinge beneath; *shanks pitchy: wings pale gray, with a slight testaceous tinge at the base;* veins black, tawny at the base; præbrachial vein forming an obtuse angle at its flexure, beyond which it is very slightly inclined inward; lower cross-vein with two equally slight curves, the lower inward, the upper outward: alulæ white, with pale yellow borders. Length of the body 5½ lines; of the wings 11 lines.

Georgia.

TACHINA OBCONICA, Más.

Nigra, canescens; caput album; thorax nigro quadrivittatus; alæ subcinereæ.

Black: *head with a white covering;* frontalia deep black, slightly widening towards the feelers; facialia without bristles except at the base; epistoma not prominent: *palpi tawny:* feelers black; third joint linear, very slightly rounded at the tip, not reaching the epistoma, full thrice the length of the second; sixth slender, nearly twice the length of the third, rather stout towards the base: *chest and abdomen with a hoary covering: chest with four indistinct black stripes:* abdomen obconical, very little longer than the chest: *wings very slightly gray;* veins black, pitchy at the base; præbrachial vein forming an obtuse angle at its flexure, very slightly inclined inward from thence to its tip; lower cross-vein with the two curves which are distinct: alulæ white. Length of the body 4 lines; of the wings 8 lines.

United States.

[cinctella] tinctella p 287

TACHINA CHRYSOTELUS, Mas.

Nigra, canescens; caput auratum; thorax nigro quadrivittatus; abdomen albo-micans, apice auratum; alæ subcinereæ.

Black, *with a hoary tinge: head bright gold-colour*, thickly clothed behind and beneath with white hairs; frontalia black, slightly widening at each end; face white; facialia beset with black bristles along the whole length; epistoma not prominent: eyes clothed with pale hairs: mouth red; palpi black: feelers black; third joint linear, almost reaching the epistoma, about thrice the length of the second joint: *chest with four black stripes: abdomen* obconical, not longer than the chest, *with white reflections on each side; tip gold-colour:* legs black: *wings slightly gray;* veins black; præbrachial vein forming an obtuse angle at its flexure, from whence it is hardly curved inward; lower cross-vein with two very slight curves, the lower inward one more than thrice the length of the upper outward one: alulæ white. Length of the body $4\frac{1}{2}$ lines; of the wings 9 lines.

Brazil.

Tachina subpicea, Mas.

Nigra, canescens; caput album; thorax nigro quadrivittatus, scutello piceo; abdomen piceum, albo-micans, subtus subferrugineum; alæ cinereæ.

Fam. *Faunidæ;* Gen. *Phryno?* Black: *head with a white covering*, clothed beneath and behind with whitish hairs; frontalia deep black, broad, almost linear; facialia without bristles except at the base; epistoma hardly prominent: eyes bare: *palpi tawny:* feelers black; second joint ferruginous; third ferruginous beneath at the base, almost linear, slightly truncated at the tip, a little deeper than the second, and about four times its length; sixth very much longer than the third: *chest and breast with a hoary covering: chest with four black stripes; scutcheon pitchy: abdomen* obconical, *pitchy*, not longer than the chest, *slightly ferruginous beneath; sides with white reflections towards the base of each segment: wings gray;* veins black, tawny towards the base: præbrachial vein forming an obtuse angle, near which it is indistinctly inclined inward, straight from thence to the tip; lower cross-vein with the two curves which are extremely slight: alulæ dingy white with pale yellow borders. Length of the body 5½ lines; of the wings 11 lines.

Brazil.

Tachina sordida, Fem.

Nigra, aurata; thorax nigro quadrivittatus; abdomen albidum, nigro subtessellatum, subtus cinereum; antennæ nigræ, basi et subtus rufæ; alæ subcinereæ, basi et apud venas subfuscæ.

Fam. *Faunidæ.* Black, *with a pale gold covering, which is brighter on the head than on the chest:* frontalia deep black; widening from the eyelets to the feelers; facialia bristly only at the base: eyes bare: epistoma not prominent: mouth and palpi black: feelers red; third joint black, red at the base, about twice the length of the second, not near reaching the epistoma; fifth not longer than the fourth; sixth black: *chest with four black stripes*, the inner pair more slender than the outer pair: *abdomen whitish, slightly tessellated with black; under side gray, with a white band on the hind border of each segment:* legs black; thighs with a gray covering: *wings grayish, pale brown at the base and along the bor-*

ders of the veins; præbrachial vein forming a very obtuse angle at its flexure, hardly inclined inward near its tip which approaches very near the tip of the cubital vein; lower cross-vein with the two usual curves, the lower more distinct than the upper. Length of the body 4 lines; of the wings 8 lines.

South America.

Tachina subaurata, Fem.

Nigra, aurata; caput antice et subtus albidum; thorax nigro quadrivittatus; pectus cinereum; abdomen nigro quadrifasciatum, subtus albido fasciatum; alæ subcinereæ, basi subfuscæ.

Black, *with a gold-colour covering: head whitish in front and beneath* where it is clothed with white hairs; frontalia pitchy, linear; epistoma not prominent: facialia without bristles except at the base: eyes bare: mouth pitchy; *palpi tawny:* feelers black; third joint almost twice the length of the second, not quite reaching the epistoma: *chest with four black stripes: breast gray: abdomen* obconical, not longer than the chest; *first segment black; second and third with black hind borders; tip black; under side with whitish interrupted bands:* legs black; thighs tinged with gray: *wings slightly gray, with a pale brown tinge at the base;* veins black, tawny at the base; præbrachial vein very slightly curved, forming a very obtuse angle at its flexure, very slightly curved inward from thence to the tip; lower cross-vein with two slight curves, the lower inward, full thrice the length of the upper which is outward: alulæ white, indistinctly tinged with yellow. Length of the body $3\frac{1}{2}$ lines; of the wings 7 lines.

Cape.

Tachina antennata, Mas.

Nigra, canescens; caput album; thorax nigro trivittatus; antennæ et pedes nigra; alæ subcinereæ.

Black: *head with a white covering;* frontalia deep black, narrow; facialia beset with bristles along the whole length; epistoma not prominent: eyes hairy: palpi black: feelers black; *third joint extremely deep,* almost straight above, slightly convex beneath, truncated at the tip, about thrice the length of the second; *its depth full twice its length:* sixth very much

longer than the third, stout for half the length, very slender from thence to the tip: *chest and abdomen with a hoary covering:* chest with three black stripes: *abdomen* oval, not longer than the chest, *thickly beset with long black bristles: wings very slightly gray;* veins black, tawny towards the base; præbrachial vein forming a very obtuse angle at its flexure, very slightly inclined inward from thence to its tip; lower cross-vein very slightly curved inward about the middle: alulæ white. Length of the body $2\frac{1}{2}$ lines; of the wings 4 lines.

United States.

Tachina ancilla, Fem.

Nigra; caput album; thorax canus; abdominis segmenta cano fasciata; alæ sublimpidæ.

Black: *head with a shining white covering;* crown with a cinereous tinge; frontalia pitchy, slightly widening at each end; facialia beset with bristles along two-thirds of the length; epistoma yellowish, not prominent: *palpi tawny:* feelers black; third joint linear, slender, truncated at the tip, more than thrice the length of the second, reaching the epistoma; sixth very slender, stout towards the base, a little longer than the third: *chest with a hoary covering: abdomen* obconical, not longer than the chest, *with hoary bands along the fore borders of the segments: wings almost colourless;* veins black, tawny towards the base; præbrachial vein forming a very obtuse angle at its flexure, hardly bent inward towards its tip, which is almost united on the border to that of the cubital vein; lower cross-vein very slightly bent inward in the middle: alulæ white. Length of the body $1\frac{3}{4}$ line; of the wings 3 lines.

United States.

Tachina subvaria,* Fem.

Nigra, albida; thorax nigro quadrivittatus; abdominis segmenta nigro fasciata; antennæ et pedes nigra; alæ cinereæ.

Black, *with a white covering: head pale gold-colour on each side of the frontalia and of the face,* clothed beneath and behind with white hairs;

* Page 265, line 20, *for* obconica *read* subvaria.

frontalia deep black, widening from the eyelets to the feelers *whence a black stripe proceeds along each side of the face;* facialia without bristles except at the base; epistoma hardly prominent: eyes hairy: mouth luteous; palpi black: feelers black; second joint ferruginous; third about four times the length of the second, almost reaching the epistoma: *chest with four slender black stripes*, the inner pair shorter than the outer pair: *abdomen* obconical, much longer than the chest, *with a broad black band on the hind border of each segment; under side hoary with a narrow testaceous band on the hind border of each segment:* legs black; thighs with a hoary covering: *wings gray;* veins black, tawny at the base; præbrachial cross-vein forming a very obtuse angle at its flexure, straight from thence to its tip; lower cross-vein with the two usual curves which are extremely slight: alulæ white: halteres ferruginous. Length of the body 4½ lines; of the wings 8 lines.

West Indies.

Tachina vulgata, Fem.

Nigra, canescens; caput auratum, subtus album; thorax nigro quadrivittatus; abdomen nigro-æneum, albo subtessellatum; alæ subcinereæ, ad venas subfuscæ.

Black, *with a hoary covering: head with a pale gold covering, white* and clothed with whitish hairs *beneath;* frontalia black, widening from the eyelets to the feelers; face white, facialia bristly along the whole length: epistoma not prominent: eyes hairy: mouth pitchy; palpi tawny: feelers black; third joint reaching the epistoma, full four times the length of the second; sixth joint very slender, bare, rather stout towards the base: *chest with four black stripes: abdomen bronze-black*, obconical, a little narrower but hardly longer than the chest, *slightly tessellated with white:* legs black: *wings pale gray, slightly tinged with brown along the borders of the veins;* veins black, tawny towards the base; præbrachial vein straight, forming a very obtuse angle at its flexure, almost straight from thence to its tip, which is very near the tip of the cubital vein; lower cross-vein with the two usual curves, the lower deeper than the upper: alulæ white, with pale yellow borders: halteres tawny. Length of the body 3½ lines; of the wings 7 lines.

South America.

Tachina tricincta, Mas.

Nigra; caput album; thorax canus, nigro quadrivittatus; abdominis segmenta cano fasciata; alæ sublimpidæ.

Black: *head shining white;* frontalia deep black, linear; facialia beset with bristles along two-thirds of the length from the base; epistoma not prominent: eyes bare: *palpi luteous:* feelers black; third joint ferruginous beneath at the base, linear, slightly rounded at the tip, reaching the epistoma, more than four times the length of the second; sixth near twice the length of the third, stout towards the base: *chest with a hoary covering which has four black stripes: abdomen* oval, a little longer than the chest, *with a hoary band on the base of each segment: wings almost colourless;* veins black, tawny at the base; præbrachial vein forming a very obtuse angle at its flexure, straight from thence to its tip which joins the cubital vein on the border above the tip of the wing; lower cross-vein with a slight inward curve in the middle: alulæ white. Length of the body $2\frac{1}{2}$ lines; of the wings $4\frac{1}{2}$ lines.

Madras or Calcutta?

Tachina vittata, Mas.

Aurata; caput antice et subtus album; thorax nigro quadrivittatus; abdomen nigrum, segmentis auro fasciatis; antennæ nigræ; pedes picei; alæ fuscæ, apice et margine postico sublimpidæ.

Black, *with a bright gold covering: head white in front and beneath* where it is clothed with white hairs; frontalia deep black, narrow, linear; facialia without bristles: epistoma not prominent: eyes bare: mouth black, with a pitchy tip; *palpi tawny:* feelers deep black; third joint almost reaching the epistoma, much more than twice the length of the second; sixth stout and pubescent near the base, slender from thence to the tip: *chest with four black stripes: abdomen* black, obconical, longer than the chest, *with a gold band on the fore border of each segment: legs pitchy;* hips and thighs with a hoary covering; *hips ferruginous: wings brown, almost colourless at the tips and along the hind borders;* veins black, tawny at the base; præbrachial vein forming a very obtuse angle at its flexure, slightly curved inward near the cubital vein to which it closely

approaches; lower cross-vein curved inward near the base: alulæ yellowish white with pale yellow borders: halteres luteous. Length of the body $2\frac{3}{4}$ lines; of the wings 5 lines.

South America.

Tachina tenebrifera, Mas.

Atra; caput auratum, antice album; thorax cinereus, nigro subvittatus; abdomen cano-micans; alæ cinereæ, basi et ad costam nigricantes.

Deep black: *head with a gilded covering*, clothed beneath with white hairs; *face and hind part white;* frontalia deep black, linear; facialia without hairs except at the base; epistoma yellow, not prominent: eyes bare: *palpi tawny:* feelers black; third joint linear, reaching the epistoma, about thrice the length of the second; sixth slender, minutely pubescent, very much longer than the third: *chest with a gray covering, which is indistinctly striped with black: abdomen* long-obconical, *with hoary reflections on each side*, a little longer than the chest: *wings gray, blackish at the base and along the fore border;* præbrachial vein forming a very obtuse angle at its flexure, from whence it is almost straight; lower cross-vein with the two curves, the lower one very deep: alulæ pale tawny. Length of the body $3\frac{1}{2}$ lines; of the wings 7 lines.

Brazil.

Tachina scita, Mas.

Aurata; thorax nigro quadrivittatus; abdomen nigrum, segmentis albido fasciatis, subtus ferrugineum; antennæ et pedes nigra; alæ subcinereæ.

Black: *head and chest with a gilded covering:* head clothed behind and beneath with pale yellow hairs; frontalia deep black, slightly widening from the eyelets to the feelers; facialia without bristles except at the base; epistoma not prominent: eyes bare: *palpi tawny:* feelers black; third joint linear, not reaching the epistoma, full thrice the length of the second; sixth slender, very indistinctly pubescent, almost twice the length of the third: *chest with four black stripes: abdomen* obconical, not longer than the chest, *with a broad whitish band on the fore border of each segment;*

under side slightly ferruginous: thighs with a hoary tinge: *wings with a very slight gray tinge;* veins black, tawny at the base; præbrachial vein forming a very obtuse angle at its flexure, from whence it is straight with the exception of a slight inward inclination near the tip; lower cross-vein with the two curves which are slight: alulæ white: halteres yellow. Length of the body 3½ lines; of the wings 7 lines.

Brazil.

Tachina cincta, Fem.

Nigra; caput argenteum; thorax albidus, nigro quadrivittatus; abdominis segmenta albo fasciata; alæ cinereæ, ad costam subfuscæ.

Black: *head with a silvery white covering;* frontalia deep black, linear; facialia without bristles except at the base; epistoma not prominent: eyes bare: *palpi tawny:* feelers black; third joint linear, tinged with white, rounded at the tip, reaching the epistoma, about four times the length of the second; sixth pubescent, very slender, tawny towards the base, very much longer than the third: *chest with a whitish covering which is interrupted by four black stripes: abdomen* long-obconical, not longer than the chest, *with a white band on the fore border of each segment: wings gray, brownish along the fore border;* veins black, tawny at the base; præbrachial vein forming a very obtuse angle at its flexure, very slightly bent inward near the tip, which is very near that of the cubital vein and ends at the tip of the wing; lower cross-vein straight: alulæ white: halteres tawny. Length of the body 2½ lines; of the wings 5 lines.

Brazil.

Tachina nigrifera.

Nigra; caput argenteum; thorax canus, nigro quadrivittatus; abdomen cano-micans; alæ cinereæ, ad venas subfuscæ.

Black: *head with a silvery white covering;* frontalia deep black, slightly widening towards the feelers; facialia beset with bristles along the whole length: eyes hairy: palpi black, with tawny tips: feelers black; third joint linear, rounded at the tip, about four times the length of the second, reaching the epistoma; sixth very slender, minutely pubescent,

stout at the base, about twice the length of the third: *chest with a hoary covering which is interrupted by four black stripes: abdomen* obconical, not longer than the chest, *with hoary reflections: wings gray, brownish beneath the fore border and along the veins;* veins black; præbrachial vein forming a very obtuse angle at its flexure, almost straight from thence to the tip; lower cross-vein slightly bent inward near the base: alulæ white, with pale yellow borders: halteres pitchy. Length of the body $3\frac{3}{4}$ lines; of the wings $7\frac{1}{2}$ lines.

Brazil.

Tachina atratula, Fem.

Nigra; caput argenteum; abdomen subargentatum; antennæ nigræ; pedes picei; alæ subcinereæ, basi flavo-fuscæ.

Black, clothed with black hairs and bristles: *head with a silvery white covering, ferruginous in front,* clothed beneath with gray hairs; frontalia deep black, very slightly widening from the eyelets to the feelers: eyes hairy; facets in front a little larger than those elsewhere: mouth black, with a ferruginous tip; *palpi ferruginous,* black towards the base; feelers black; third joint linear, about four times the length of the second, almost reaching the epistoma; sixth pubescent for half the length from the base: chest striped? *abdomen with silvery reflections on the fore borders of the segments: legs pitchy: wings slightly gray, yellowish brown towards the base;* veins black, tawny at the base; præbrachial vein forming a very obtuse angle at its flexure, straight from thence to its tip; lower cross-vein with two very slight curves, the lower inward, the upper outward: alulæ dingy white with pale yellow borders: halteres ferruginous. Length of the body $3\frac{1}{2}$ lines; of the wings 7 lines.

Brazil.

Tachina ruficornis, Fem.

Cyaneo-viridis; caput argenteum; antennæ rufæ, articulo 3o supra piceo; abdomen purpureo varium; pedes nigri; alæ subcinereæ.

Bright bluish-green: *head with a silvery white covering, testaceous in front,* clothed behind and beneath with white hairs; frontalia pitchy, slightly widening from the eyelets to the feelers: antennaria tawny; sides

of the face ferruginous; facialia without bristles except at the base; epistoma prominent: eyes hairy: mouth ferruginous, partly pitchy; *palpi tawny: feelers red;* third joint pitchy above, rather deep, linear, slightly rounded at the tip, very much longer than the second; sixth black: *abdomen slightly purple:* legs black: *wings slightly gray;* veins black; præbrachial vein forming a right angle at its flexure which emits a short stump beyond it, much curved inward from thence to its tip: alulæ dingy white: halteres tawny with pale knobs. Length of the body 3½ lines; of the wings 7 lines.

South America.

Genus GONIA, *Meigen.*

Gonia indica.

Cana, subcervina; caput argenteum; thoracæ nigro quinquevittatus; abdomen testaceum, cano-micans, nigro vittatum; antennæ fulvæ, apice nigræ; pedes nigri, tibiis ferrugineis; alæ limpidæ.

Hoary, with a slight fawn-colour tinge: head pale buff with a silvery white covering, clothed beneath with white hairs; stemmatic region pitchy; frontalia luteous: mouth pitchy; palpi pale yellow: antennæ tawny; third joint from half the length to the tip and following joints black: *chest with five slender, indistinct and interrupted black stripes: abdomen testaceous, with hoary reflections and with a black middle stripe:* legs black with a hoary tinge; *shanks mostly ferruginous:* wings colourless; veins testaceous, pale yellow at the base: alulæ white. Length of the body 5 lines; of the wings 10 lines.

East Indies.

Genus DEXIA, *Meigen.*

The species here described may be grouped thus: —

a. Proboscis short.

b. Præbrachial vein forming a very slightly acute angle at its flexure. obscura.

b b. Præbrachial vein forming a hardly acute angle at its flexure.
fusiformis, dorsalis, muscaria.

b b b. Præbrachial vein forming a right angle at its flexure, joining the cubital vein.
notata.

b b b b. Præbrachial vein forming an almost right angle at its flexure.
canescens.

b b b b b. Præbrachial vein forming a slightly obtuse angle at its flexure.
postica, basalis?

b b b b b b. Præbrachial vein forming an obtuse angle at its flexure.

c. Sixth joint pubescent along half the length.
longa.

c c. Sixth feeler-joint feathered with short hairs.
convexa.

c c c. Sixth feeler-joint feathered with rather long hairs.
subcompressa.

b b b b b b b. Præbrachial vein forming a very obtuse angle at its flexure.

c. Sixth feeler-joint bare.
pedestris.

c c. Sixth feeler-joint feathered.

d. Legs of moderate length.

e. Sixth feeler-joint feathered with short hairs.
angusta, australis.

e e. Sixth feeler-joint feathered with moderately long hairs.
plana.

d d. Legs long.
tenuipes.

b b b b b b b b. Præbrachial vein forming a curve at its flexure.
semipicta, suffusa.

a a. Proboscis long.

b. Præbrachial vein forming a slightly obtuse angle at its flexure.
albifrons, insolita.

b b. Præbrachial vein forming a very obtuse angle at its flexure.
4-maculata.

Dexia obscura.

Cinerea ; caput fulvum, argentatum ; thorax nigro quadrivittatus, scutello fulvo ; abdomen fulvum, nigro vittatum, apice albo-micans ; antennæ fulvæ ; pedes nigri, tibiis basi fulvis ; alæ cinereæ, ad costam fuscæ.

Cinereous : head tawny, with a silvery white covering, clothed behind and beneath with white hairs ; frontalia deep black, widening from the eyelets to the feelers : mouth black ; palpi tawny, slender : *feelers tawny ;* third joint linear, more than twice the length of the second, not near reaching the epistoma : *chest with four black stripes*, inner pair slender ; *scutcheon tawny* with a cinereous covering : *abdomen dark tawny, with white reflections at the tip, and with a black stripe which is widened on the hind border of each segment :* legs black ; *thighs tawny* towards the base ; anterior onychia long : *wings gray, brown beneath the fore border except at the tips ;* veins black, tawny at the base ; præbrachial vein forming a very slightly acute angle at its flexure, curved inward near this and more slightly so from thence to the tip ; lower cross-vein with two indistinct curves, the lower one inward, the upper one outward : alulæ dingy white with a tawny tinge towards the borders : halteres tawny. Length of the body 6½ lines : of the wings 14 lines.

Brazil.

Dexia fusiformis.

Cervina ; caput album ; thorax nigro quadrivittatus ; abdomen testaceum, albo-micans, nigro vittatum ; antennæ rufæ ; pedes fulvi, tarsis nigris ; alæ subcinereæ.

Fawn-colour : head with a shining white covering ; frontalia ferruginous, widening from the eyelets to the feelers ; facialia without bristles : epistoma not prominent ; lateralia red : eyes bare : *palpi tawny : feelers pale red ;* third joint tapering to the tip, not nearly reaching the epistoma : sixth black, feathered, slender, thick at the base, more than twice the length of the third : *chest with four black stripes : abdomen testaceous*, obconical, longer than the chest, *with whitish reflections, and with a black stripe which is widened at the base : legs tawny ; feet black ; wings slightly gray ;* veins black, tawny towards the base ; præbrachial vein forming a hardly acute angle at its flexure, near which it is bent inward, and very

slightly so near the tip which is very near that of the cubital vein; lower cross-vein with two curves, the lower deeper than the upper: alulæ white: halteres tawny. Length of the body 6 lines; of the wings 11 lines.

Dexia dorsalis.

Testacea; caput antice argenteum; thorax nigro trivittatus, vitta media flavo quadristrigata; abdomen fulvum, cano-micans, nigro vittatum et lateribus maculatum; pedes fulvi, tibiis ferrugineis, tarsis nigris; alæ cinereæ, ad costam fulvæ; venis fusco marginatis.

Testaceous, slender, with a pale yellow covering: *head* clothed behind and beneath with pale yellow hairs; *fore part silvery white;* frontalia deep brown, linear, with a dark red streak; mouth and *palpi pale testaceous: feelers testaceous;* sixth joint clothed with long hairs: *chest with three deep brown stripes, the middle one very broad, inclosing four yellowish streaks*, the inner pair united in front, dilated behind: *abdomen tawny, with hoary reflections*, adorned with a black stripe, and on each side with a row of black spots: *legs tawny; shanks ferruginous; feet black: wings gray, tawny along the fore border for half the length from the base*, slightly tawny along the borders of the veins; veins pitchy, tawny towards the base and along the fore border; præbrachial vein forming a hardly acute angle at its flexure, curved inward from thence along its whole length, especially near the base; lower cross-vein with two curves, the lower inward, the upper outward and very slight: alulæ whitish with yellow borders: halteres tawny. Length of the body 4—5 lines; of the wings 8—10 lines.

Var. Smaller, paler: frontalia red: shanks tawny: wings darker gray beneath the fore border towards the tips; præbrachial vein forming a right angle at its flexure.

South America.

Dexia muscaria, Fem.

Nigra, sat lata; caput albidum; thorax cervinus, nigro quadrivittatus; scutellum et abdomen testacea; abdomen nigro vittatum; antennæ fulvæ; alæ cinereæ, ad venas fuscæ.

Black, *rather broad: head with a whitish covering;* frontalia pitchy, widening from the eyelets to the feelers; facialia without bristles;

epistoma slightly prominent: eyes bare: *palpi tawny: feelers tawny;* third joint short, more shallow towards the tip, about half the length of the face, a little more than twice the length of the second; sixth stout, feathered to the tip with long hairs, twice the length of the third: *chest with a dull pale fawn-colour covering, and with four black stripes,* the outer pair broader than the inner pair: *scutcheon and abdomen dull testaceous with pale reflections: abdomen* obconical, a little longer than the chest, *with a black stripe which tapers from the base to the tip: wings gray, brown beneath the fore border and along the veins;* præbrachial vein forming a hardly acute angle at its flexure which emits a short branch, bent inward a little beyond this, and almost straight from thence to its tip; lower cross-vein with the two curves which are distinct: alulæ dingy white with pale yellow borders. Length of the body 4 lines; of the wings 9 lines.

Brazil.

Dexia notata.

Cana; thorax nigro bivittatus, scutello subferrugineo; abdomen cinereum; antennæ nigræ, basi ferrugineæ; pedes nigri, longi; alæ cinereæ.

Hoary: head clothed behind and beneath with white hairs, *red about the face;* frontalia pitchy, almost linear: mouth black, shining, ferruginous at the tip: feelers black; first and second joints ferruginous; sixth clothed with short black hairs: *chest with two very broad black stripes, each of which includes an indistinct pale brown streak: scutcheon with a ferruginous covering: abdomen cinereous: legs long,* black, slender; thighs with a hoary tinge: *wings gray;* veins black, tawny at the base and along the fore border; *cross-veins bordered with dark brown;* præbrachial vein forming a right angle at its flexure, curved inward near this, almost straight from thence to the tip which joins the cubital vein; lower cross-vein with three curves, the first and the third slight and inward, the middle one deep and outward: alulæ white with pale yellow borders: halteres pale red. Length of the body $2\frac{3}{4}$ lines; of the wings $5\frac{1}{2}$ lines.

New South Wales.

Dexia canescens.

Cana; caput cinereum; thorax piceo quinquevittatus; abdomen tessellatum; antennæ nigræ, basi ferrugineæ; pedes nigri, tibiis ferrugineis; alæ subcinereæ, ad venas fusco submarginatæ.

Pitchy: head with a cinereous covering, deep red in front, clothed behind and beneath with very pale yellow hairs; frontalia dark red, tinged with gray, widening much towards the feelers; peristoma testaceous: mouth black, ferruginous at the base and at the tip; *palpi tawny, long, slender, subclavate:* feelers black; first and second joints ferruginous; third ferruginous at the base, much longer than the second; fourth and fifth very short; sixth slender, stout at the base: *chest hoary with five pitchy stripes,* the inner pair very slender: *abdomen mostly hoary, tessellated:* legs black; thighs hoary beneath; *shanks ferruginous: wings pale gray; veins* pitchy, tawny at the base and along the fore border, *indistinctly bordered with brown;* præbrachial vein forming an almost right angle at its flexure, almost straight from thence to its tip; lower cross-vein with two slight curves, the lower inward, the upper outward: alulæ white: halteres ferruginous. Length of the body 5 lines; of the wings 10 lines.

United States.

Dexia postica.

Picea; caput argenteum; thorax albido trivittatus; pectus vittis duabus obliquis argenteis ornatum; abdominis segmenta argenteo fasciata; antennæ et pedes picea; alæ nigro-fuscæ, ad costam basi fulvæ, margine postico cinereæ.

Pitchy: *head silvery white,* clothed behind and beneath with white hairs, frontalia pitchy, with a black stripe on each side; foveæ and sides of the peristoma blackish: mouth ferruginous; *palpi tawny: feelers pitchy;* second joint at the tip, fourth and following joints tawny; third joint much more slender but hardly longer than the second: *chest with three dingy white stripes: breast with an oblique silvery white stripe on each side: abdomen with a silvery white band on the fore border of each segment: legs pitchy; hips, thighs at the base and knees ferruginous: wings very dark brown, gray along the hind border, tawny along the fore border towards*

the base; veins black, ferruginous at the base; præbrachial vein forming a slightly obtuse angle at its flexure which emits a short branch, a little curved inward near this, almost straight from thence to the tip; lower cross-vein with two slight curves, the lower inward, the upper one outward: alulæ dingy white. Length of the body 5½ lines; of the wings 11 lines.

Georgia.

Dexia basalis.

Cana; caput auratum; antennæ luteæ; thorax nigro quadrivittatus, scutello piceo, pectore ferrugineo; abdomen cyaneum, basi ferrugineum; pedes fulvi, tarsis nigris; alæ cinereæ, venis fusco marginatis.

Hoary: head gold-colour, clothed beneath with yellow hairs; frontalia triangular, yellowish brown, widening much from the eyelets to the feelers; face very pale yellow; epistoma prominent; facialia having on each side a pitchy spot, between which and the epistoma they are beset with bristles: eyes bare; all the facets small: mouth and palpi ferruginous: *feelers luteous;* third joint more than twice the length of the second; sixth black: *chest with four interrupted black stripes; scutcheon pitchy: breast ferruginous* with a hoary tinge: *abdomen blue, ferruginous* with a hoary tinge *towards the base: legs tawny; feet black: wings gray*, darker at the base, *tinged with brown about the veins* which are black; præbrachial vein hardly curved inward beyond its flexure; lower cross-vein with two curves, the lower inward curve more distinct than the upper outward curve: alulæ pale dingy testaceous. Length of the body 4⅕ lines; of the wings 11 lines.

South America.

Dexia longa.

Nigra; caput argenteo-ferrugineum; thorax cinereus, nigro quadrivittatus; abdomen fusiforme, thorace plus duplo longius, lateribus piceum, cinereo octomaculatum; alæ cinereæ, ad venas fuscæ.

Black: *head ferruginous with a silvery white covering*, clothed behind and beneath with dingy white hairs; frontalia triangular, widening much

from the eyelets to the feelers: mouth pitchy, with a ferruginous tip; *palpi ferruginous:* feelers black; third joint slightly deepening from near the base to near the tip, ferruginous at the base, more than thrice the length of the second joint, not reaching the epistoma; sixth downy for half the length from the base: *chest and breast with a cinereous covering, excepting four black stripes on the chest*, the inner pair slender: *abdomen spindle-shaped*, more than twice the length of the chest, *pitchy on each side, where it is adorned with four large subquadrate cinereous spots:* legs black: *wings gray, brown along the fore border and about the borders of the veins;* veins black, tawny at the base; præbrachial vein forming an obtuse angle at its flexure, hardly curved inward by this, almost straight from thence to the tip; lower cross-vein with two slight curves, the lower inward, the upper outward: alulæ whitish with pale yellow borders: halteres tawny with yellow knobs. Length of the body 8 lines; of the wings 13 lines.

South America.

Dexia convexa, Fem.

Nigra; caput argenteum; thorax cervinus, nigro sexvittatus; abdomen fulvum, nigro vittatum; antennæ basi fulvæ; pedes fulvi, tarsis nigris; alæ cinereæ, ad venas fuscæ.

Black: *head with a silvery white covering*, clothed beneath and behind with pale yellow hairs; *crown fawn-colour;* frontalia brown, widening from the eyelets to the feelers; facialia without bristles; epistoma prominent: eyes bare: *palpi tawny;* feelers black; first and second joints tawny; third black, linear, rounded at the tip, tawny at the base, not reaching the epistoma, more than twice the length of the second; sixth slender, feathered with short hairs, stout at the base, more than twice the length of the third: *chest with a fawn-colour covering which is interrupted by six black stripes: abdomen oval, tawny*, broader and a little longer than the chest, *with a black stripe widening at the base and more so towards the tip which is wholly black: legs tawny; feet black: wings gray, brown along the veins* which are black, and at the base tawny; præbrachial vein forming an obtuse angle at its flexure, straight from thence till near the tip where it is slightly bent inward; lower cross-vein with the two curves which are slight: alulæ gray, with pale yellow borders. Length of the body 5 lines; of the wings 11 lines.

Brazil.

Dexia subcompressa, Mas.

Nigra; caput argenteum; thorax cinereus; nigro quadrivittatus; abdomen compressum, argenteo bifasciatum; alæ cinereæ, apice subfuscæ.

Black, slender: *head with a silvery white covering*, clothed beneath and behind with white hairs; frontalia black, narrow, widening towards the feelers; facialia without bristles; epistoma hardly prominent: eyes bare: palpi black: feelers black; second joint ferruginous at the tip: third linear, conical at the tip, not reaching the epistoma, more than twice the length of the second; sixth feathered with rather long hairs, almost twice the length of the third: *chest gray, with four black stripes*, the outer pair interrupted: *abdomen compressed*, slightly tapering from the base to the tip, narrower than the chest, and full twice its length; *second and third segments with broad silvery bands along their fore borders: wings gray, slightly clouded with brown near their tips;* præbrachial vein forming an obtuse angle at its flexure, very slightly bent outward from thence to its tip; lower cross-vein with the two curves, the lower one deep and short, the upper one long and slight: alulæ whitish, with pale yellow borders: halteres pale yellow. Length of the body 4½ lines; of the wings 10 lines.

East Indies.

Dexia pedestris, Mas.

Cinerea; caput album; thorax nigro quadrivittatus; abdomen apice nigrum; antennæ fulvæ; pedes fulvi, validi, tarsis nigris; alæ sublimpidæ.

Black, *narrow, with a cinereous covering: head with a white covering;* frontalia deep black, ferruginous and widening towards the feelers; facialia without bristles; epistoma not prominent: eyes bare: *palpi tawny: feelers tawny;* third joint slender, linear, pitchy towards the tip which is rounded, almost reaching the epistoma, about four times the length of the second; sixth black, bare, slender, more than twice the length of the

third: *chest with a cinereous covering and with four black stripes*, the outer pair interrupted, broader than the inner pair: *abdomen* obconical, a little longer than the chest, *black towards the tip*: *legs tawny*, stout; *feet black: wings almost colourless;* præbrachial vein forming a very obtuse angle at its flexure, almost straight from thence to its tip; lower cross-vein with the two curves which are slight: alulæ white with pale yellow borders: halteres tawny. Length of the body 4 lines; of the wings 9 lines.

United States.

Dexia angusta.

Testacea; caput et pectus alba; scutellum apice flavum; abdomen flavum, maculis tribus trigonis piceis semivittatum, apice fulvum; antennæ nigræ, basi fulvæ; pedes fulvi, tarsis nigris; alæ angustæ, sublimpidæ.

Testaceous, slender, almost linear: *head white*, clothed behind and beneath with white hairs; frontalia ferruginous, very slender, widening slightly towards the feelers: mouth tawny; *palpi yellow:* feelers black; first and second joints tawny; third tawny towards the base; sixth feathered with very short hairs: *breast white: scutcheon yellow towards the tip: abdomen yellow, tawny at the tip, with a pitchy triangular spot on the hind border of each segment from the first to the third*, that of the first segment very small: *legs long, tawny; feet black: wings narrow, almost colourless;* veins black, tawny towards the base; præbrachial vein forming a very obtuse angle at its flexure, nearly straight from thence to its tip; lower cross-vein with two curves, the lower inward, deeper than the other which is outward: alulæ very pale yellow: halteres tawny. Length of the body $3\frac{1}{2}$ lines; of the wings 8 lines.

Brazil.

Dexia australis.

Nigra; caput argenteum; thoraæ cano trivittatus, scutello apice ferrugineo; abdomen albo-micans, fulvo bivittatum; tibiæ piceæ; alæ cinereæ.

Black: *head silvery white*, clothed behind and beneath with white hairs; frontalia black, widening from the eyelets to the feelers; *a ferrugi-*

nous stripe on each side of the peristoma ; epistoma not prominent: mouth ferruginous, clothed with pale hairs; *palpi tawny :* feelers black; sixth joint feathered with short hairs: *chest with three broad hoary stripes; scutcheon ferruginous at the tip; abdomen with white reflections, and on each side with a broad tawny stripe which extends from the hind border of the first segment to the fore border of the third :* legs black ; *shanks pitchy : wings gray ;* veins black, tawny towards the base ; præbrachial vein forming a very obtuse angle at its flexure, with a very slight inward curve from thence to its tip; lower cross-vein forming an obtuse angle at one-third of the length from the base, almost straight from thence to the tip: alulæ white: halteres ferruginous. Length of the body 4½ lines; of the wings 9 lines.

New Holland.

Dexia plana, Fem.

Nigra; caput et pectus alba; thorax subauratus, nigro quadrivittatus, scutello fulvo; abdomen fulvum, nigro trimaculatum et bifasciatum; antennæ fulvæ; pedes fulvi, tibiis anticis apice tarsisque nigris; alæ subcinereæ, ad costam subfulvæ.

Black, of moderate breadth: *head with a silvery white covering; crown slightly gilded ;* frontalia pitchy, narrow, slightly widening towards the feelers; facialia without bristles; epistoma very slightly prominent: *palpi tawny : feelers tawny ;* third joint linear, darker towards the tip which is rounded, about four times the length of the second; sixth much longer than the third, feathered with moderately long hairs: *chest with a slightly gilded covering, and with four very slender black stripes; scutcheon tawny* with a gilded covering: *breast white; abdomen tawny, almost spindle-shaped,* longer than the chest; *second segment with three black spots on the hind border; third and fourth with black bands along the hind borders : legs tawny; feet and tips of the fore-shanks black ;* hind-shanks dark tawny: *wings slightly gray, with a tawny tinge along the fore border ;* præbrachial vein forming a very obtuse angle at its flexure, very slightly bent inward near the tip; lower cross-vein with the two curves, the lower one deeper than the upper which is very slight: alulæ whitish with pale yellow borders: halteres yellow. Length of the body 4 lines; of the wings 8 lines.

Brazil.

Dexia tenuipes, Mas.

Nigra; caput argenteum; thorax canus, subvittatus, scutello apice ferrugineo; abdomen fulvum, maculis trigonis nigris vittatum; antennæ fulvæ; pedes fulvi, tibiis piceis, tarsis nigris; alæ subcinereæ.

Black: *head with a silvery white covering*, clothed beneath and behind with white hairs; frontalia black, narrow, widening towards the feelers; facialia ferruginous, without hairs; epistoma prominent; lateralia tawny: eyes bare: proboscis black, slender, as long as the chest; *palpi tawny, extremely short: feelers tawny;* third joint linear, rounded at the tip, more than thrice the length of the second; sixth feathered with long hairs, much longer than the third: *chest with a hoary covering, indistinctly striped in front*, a little narrower than the head; *transverse suture, hind border of the shield, sides and breast whitish; tip of the scutcheon ferruginous: abdomen tawny, with white reflections*, clothed on each side with white hairs, beset with very few black bristles, tapering from the base to the tip, much longer and narrower than the chest; *a large triangular black spot resting on the hind border of each segment: legs tawny, long and slender; shanks pitchy; feet black: wings very slightly gray;* præbrachial vein forming a very obtuse angle at its flexure, hardly bent inward near the tip; lower cross-vein with the two curves, the upper deeper than the lower: alulæ white, with pale yellow borders. Length of the body 4 lines; of the wings 9 lines.

Dexia semipicta, Mas.

Nigra, aurata, angusta; pectus albidum; abdomen testaceum; antennæ fulvæ; pedes fulvi, tibiis ferrugineis, tarsis nigris; alæ cinereæ, ad costam subfuscæ.

Body narrow: *head with a very pale gilded covering;* frontalia deep black, widening towards the feelers; facialia without bristles; epistoma not prominent: eyes bare: proboscis black, with a tawny tip; *palpi tawny: feelers tawny;* third joint linear, rounded at the tip, not nearly reaching the epistoma, more than twice the length of the second; sixth black, longer than the third, feathered with rather long hairs: *chest with a gilded covering: breast whitish: abdomen pale testaceous*, long-obconical, much longer than the chest, *with whitish reflections, black at the tip: legs tawny; shanks*

ferruginous; feet black: wings gray, yellow at the base and along three-fourths of the fore border, brownish at the tips and along the veins; veins tawny, brown towards the tips, præbrachial vein forming a curve at its flexure, straight from thence till near the tip where it is slightly bent inward, lower cross-vein hardly bent inward towards the tip: alulæ and halteres pale yellow. Length of the body 4½ lines; of the wings 8 lines

Amazon River.

DEXIA SUFFUSA, Fem. = *Rhynchodexia*.

Nigra, subaurata; caput album; abdomen fulvum, apice nigrum; antennæ fulvæ; pedes fulvi, tarsis nigris; alæ subcinereæ, basi et ad costam subfulvæ.

Black, *with a slightly gilded covering: head with a snow-white covering in front;* frontalia black, linear; facialia without bristles; epistoma not prominent; *palpi tawny: feelers tawny;* third joint mostly darker, linear, rounded at the tip, not reaching the epistoma, more than twice the length of the second; sixth black, feathered to the tip with short hairs, more than twice the length of the third: *abdomen tawny*, obconical, longer than the chest, with a few black spines, *black towards the tip:* legs *tawny;* shanks darker than the thighs; *feet black: wings slightly gray, with a tawny tinge at the base and along the veins and on part of the fore border which has a pale brown tinge towards the tip;* veins tawny, pitchy towards the tips; præbrachial vein forming a curve at its flexure, almost straight from thence to its tip; lower cross-vein with a very slight inward curve near the base, and a more indistinct outward curve in the middle: alulæ and halteres yellow. Length of the body 3½ lines; of the wings 7 lines.

DEXIA ALBIFRONS, Mas. *Rhynchodexia* [*Austen*]

Cinerea; caput album; thorax nigro quadrivittatus; antennæ nigræ, basi rufæ; pedes nigri, tarsis ferrugineis; alæ cinereæ, basi subfuscæ.

Black, *with a cinereous covering: head with a white covering;* frontalia black, with a ferruginous disk, widening from the eyelets to the feelers; facialia without bristles; epistoma tawny, prominent; lateralia ferruginous; peristoma ferruginous, prominent: mouth black, nearly as long as the chest, tawny at the base; *palpi yellow, long, slender:* feelers black; first

and second joints red; third short, linear, rounded at the tip, red at the base, not nearly reaching the epistoma, about twice the length of the second; sixth feathered to the tip, stout at the base, more than twice the length of the third: *chest with four black stripes*, the inner pair slender, almost contiguous: *abdomen* obconical, *with paler reflections*, narrower and a little longer than the chest: legs black; *shanks ferruginous: wings gray, brownish at the base;* veins black; præbrachial vein forming a slightly obtuse angle at its flexure, slightly bent inward along half the length from thence, then straight for a space, next emitting a little branch, between which and the tip it has two curves; lower cross-veins with the two curves which are slight: alulæ whitish with yellow borders: halteres tawny. Length of the body 4½ lines; of the wings 9 lines.

United States.

Dexia insolita.

Cinerea; caput argenteum; thorax nigro septemvittatus; scutellum et abdomen atra; antennæ fulvæ; pedes nigri; alæ subcinereæ, basi fuscæ.

Fem. Cinereous: head silvery white, clothed behind and beneath with white hairs; frontalia deep black, with a row of bristles along each side, widening from the eyelets to the feelers; facialia without bristles; epistoma slightly prominent; foveæ not extending beyond half the length to the epistoma: mouth black, shining, with a ferruginous tip; *palpi yellow, very slender: feelers tawny;* second joint partly black; third linear, rounded at the tip, much less deep than the second and nearly twice its length; fourth and fifth very short; sixth black, feathered to the tip with long hairs: *chest with seven interrupted black stripes: scutcheon and abdomen deep black, thickly beset with black bristles: abdomen* obconical, *a little broader* but not longer *than the chest:* legs black: *wings pale gray, dark brown near the base; veins* tawny at the base and along the fore border, *clouded with pale brown;* præbrachial vein forming a slightly obtuse angle at its flexure, straight from thence till near the tip where it is slightly inclined inward, approaching near the tip of the cubital vein; lower cross-vein with the two usual curves which are rather deep: alulæ gray, with pitchy borders: halteres pitchy. Length of the body 4½—7 lines; of the wings 11—16 lines.

Brazil.

Dexia quadrimaculata, Mas.

Nigra; caput album; thorax cervinus, nigro quadrivittatus; abdomen testaceum nigro vittatum et quadrimaculatum; antennæ piceæ, basi fulvæ; pedes fulvi, femoribus posticis nigro vittatis, tarsis nigris; alæ fusco-cinereæ.

Black: *head with a silky white covering*, clothed beneath and behind with white hairs; frontalia black; antennaria tawny; facialia without bristles; epistoma prominent: eyes bare: proboscis pitchy, slender, tawny towards the base, longer than the chest; *palpi tawny: feelers tawny; third joint pitchy*, linear, not reaching the epistoma, rounded at the tip, tawny beneath towards the base, more than twice the length of the second; sixth black, slender, feathered to the tip with short hairs, more than twice the length of the third: *chest with a fawn-colour covering* and with four black stripes, outer pair of stripes interrupted, shorter and broader than the inner pair; breast paler: *abdomen testaceous*, obconical, much longer than the chest, *with two black spots on each side, and with a black stripe which widens from the base and occupies the whole breadth towards the tip where there are pale reflections: legs tawny; hind-thighs striped with black towards the tips; feet black; wings brownish gray;* præbrachial vein forming a very obtuse angle at its flexure, straight from thence till near the tip where it is slightly bent inward; lower cross-vein with two curves which are very slight: alulæ grayish with pale yellow borders: halteres yellow. Length of the body 4½ lines; of the wings 5 lines.

Brazil.

Genus SARCOPHAGA, *Meigen.*

The species here described may be grouped thus: —

a. Third feeler-joint four times the length of the second..... Cynomyia.
hirtipes.

a a. Third feeler-joint thrice the length of the second.

b. Sixth feeler-joint feathered.

c. Legs thickly clothed with long hairs.
hirtipes.

c c. Legs thinly clothed with short hairs.

d. Legs black
e. Frontalia black.
f. Tip of the abdomen red or tawny.
g. Head white.
h. Frontalia linear.
parva.
h h. Frontalia widening.
i. Feelers black.
derelicta, maculosa, decisa.
i i. Feelers pitchy.
comes.
g g. Head gilded.
h. Frontalia linear.
suffusa, advena.
h h. Frontalia widening.
incerta, aurifinis.
h h h. Frontalia tapering.
cognata.
f f. Tip of the abdomen black.
sericea, fulvivitta, calida.
e e. Frontalia black, red towards the feelers.
contermina.
e e e. Frontalia deep ferruginous.
bifrons.
d d. Legs tawny.
e. Palpi black.
assidua, fulvipes.
e e. Palpi tawny.
basalis, pallipes.
b b. Sixth feeler-joint downy..... Phorella.
chrysotelus.

Sarcophaga purpurascens.

Purpureo-cyanea ; caput argenteum ; antennæ tibiæ tarsisque nigra ; thorax antice albo vittatus ; abdomen apice cyaneo-viride ; alæ cinereæ.

Purplish blue, clothed with black hairs: *head covered with silvery white pile*: mouth black: feelers black, extending nearly to the epistoma;

third joint linear, slightly truncated at the tip, about four times the length of the second: *chest with short white stripes in front: abdomen bluish-green towards the tip:* thighs and shanks thickly clothed with black hairs; shanks and feet black; onychia pale yellow: *wings gray;* veins black; præbrachial vein curved inward beyond the flexure, straight from thence to the tip; lower cross-vein with two rather deep curves, the upper outward, the lower inward: alulæ dark gray. Length of the body 6 lines; of the wings 13 lines.

Sarcophaga hirtipes.

Nigra; caput et pectus aurata; palpi fulvi; antennæ articulo 3o ferrugineo; thorax vittis quatuor auratis; abdomen canum, nigro tessellatum, apice rufum; pedes ciliati; alæ cinereæ, basi subfuscæ.

Black: *head pale gold-colour*, clothed behind and beneath with yellow hairs; frontalia black, widening from the eyelets to the feelers; epistoma prominent, tawny: mouth pitchy, clothed with tawny hairs; *palpi tawny, black towards the base: feelers* black; *third joint ferruginous*, rather long: *chest with four very slightly gilded stripes, each inner one inclosing a black streak: breast gilded: abdomen hoary, tessellated with black; tip red: thighs and shanks clothed with long black hairs;* fore-thighs cinereous beneath; *wings gray, brownish at the base:* alulæ dingy white: halteres tawny. Length of the body 8½ lines; of the wings 16 lines.

Columbia.

Sarcophaga parva.

Nigra, cano-tomentosa; caput album; thorax fusco trivittatus; abdomen subtessellatum; alæ subhyalinæ.

Black, *with a hoary covering: head white;* frontalia deep black, linear: feelers black: *chest with three brown stripes: abdomen slightly tessellated: wings almost colourless:* præbrachial vein forming a very obtuse angle at its flexure, near which it is slightly bent inward; lower cross-vein almost straight: alulæ white. Length of the body 1½ line: of the wing 2 lines.

Pará.

Sarcophaga derelicta, Mas et Fem.

Nigra, cano-tomentosa ; caput album ; thorax fusco trivittatus, scutelli disco fusco ; abdomen cinereum, cano varium, apice rufo ; alis subcinereis.

Black, *with a hoary covering : head with a white covering ;* frontalia dull black, slightly widening from the eyelets to the feelers : palpi and feelers black : *chest with three brown stripes ; disk of the scutcheon brown : abdomen gray, with hoary reflections ; tip red :* legs black : *wings slightly gray ;* veins black ; præbrachial vein forming a hardly obtuse angle at its flexure, much bent inward near this, straight from thence to the tip which joins the tip of the cubital vein ; lower cross-vein slightly bent inward near the base : alulæ white. Length of the body $2\frac{1}{4}$ lines ; of the wings $4\frac{1}{2}$ lines.

Var. β. Præbrachial vein not joining the cubital.

Var. γ. Præbrachial vein forming a very obtuse angle at its flexure.

United States.

Note. These three vars. may perhaps be three distinct species.

Sarcophaga maculosa.

Nigra ; caput argenteum ; thorax cano quadrivittatus ; abdomen e maculis argenteis quadrivittatum, apice rufo ; alis subcinereis.

S. argyrostoma, *Desv.*, differs from this species by its large size, and by the yellowish red tip of its abdomen.

Black : *head silvery white ;* frontalia deep black, broad, widening from the eyelets to the feelers ; facialia deep black in the middle part, pale fawn-colour towards the epistoma : feelers black : *chest with four hoary stripes : abdomen with four rows of silvery spots ; tip rather dark red : wings* very *slightly gray :* alulæ whitish with pale yellow borders : halteres tawny Length of the body $4\frac{1}{2}$ lines ; of the wings 8 lines.

Cape.

Sarcophaga decisa.

Cinerea ; caput albidum ; palpi ferruginei ; thorax nigro quinquevittatus ; abdomen tessellatum, vitta dorsali nigra, apice rufo ; pedes picei ; alæ subcinereæ.

Cinereous: *head shining, almost white in front,* clothed behind and beneath with white hairs; frontalia grayish black, slightly widening from the eyelets to the feelers, minutely striated; epistoma prominent: mouth pitchy; *palpi dark ferruginous: chest with five black stripes,* the outer pair short, *two gray streaks on the cinereous part within the inner pair: abdomen tessellated, with a black dorsal stripe; tip red: legs pitchy;* hips ferruginous; thighs with a cinereous covering: *wings pale gray:* alulæ whitish: poisers tawny. Length of the body 4½ lines; of the wings 9 lines.

Senegal?

Sarcophaga comes, Mas.

Cana; caput argenteum; antennæ piceæ; thorax nigro quinquevittatus; abdomen nigrum, cinereo varium, apice rufo; alæ subcinereæ.

Hoary: head silvery white, clothed beneath and behind with whitish hairs; frontalia deep black, widening from the eyelets to the feelers; *a slender black clavate stripe on each side of the face:* mouth black with a pitchy tip; palpi black: *feelers pitchy,* with a hoary covering; tip of the second joint ferruginous: *chest with five black stripes: abdomen black, with cinereous reflections; tip red:* legs black: *wings pale gray;* veins black, pitchy at the base; præbrachial vein forming an almost right angle at its flexure, curved inward near this, hardly inclined outward from thence to the tip; lower cross-vein with the two usual curves which are very slight: alulæ white: halteres tawny. Length of the body 3½—4 lines; of the wings 28 lines.

United States.

Sarcophaga suffusa, Fem.

Nigra, cano-tomentosa ; caput subauratum ; thorax nigro quinquevittatus ; abdomen cinereum, cano varium, apice rufo ; alæ subcinereæ.

Black, *with a hoary covering : head with a very pale gilded covering ;* frontalia dull black, broad, linear : second joint of the feelers red above at the tip : *chest with five black stripes ;* inner pair very slender : *abdomen entirely cinereous with hoary reflections ; tip red :* legs black ; thighs with a hoary tinge : *wings slightly gray ;* veins black, tawny at the base ; præbrachial vein forming a hardly acute angle at its flexure, much bent inward near this, almost straight from thence to the tip ; lower cross-vein with the two curves which are very indistinct : alulæ whitish, with pale yellow borders. Length of the body 5 lines ; of the wings 9 lines.

Sarcophaga advena, Mas et Fem.

Nigra, cano-tomentosa ; caput auratum, facie alba ; thorax nigro-fusco quinquevittatus ; abdomen cano varium, apice pallido ; alæ subcinereæ.

Black, *with a hoary covering : head with a gilded covering ; face white ;* frontalia deep black, linear : palpi and feelers black : *chest with five broad brownish-black stripes : abdomen* inlaid *with hoary reflections, tip yellow in the male, tawny in the female :* legs black : *wings slightly gray ;* veins black ; præbrachial vein forming a very slightly obtuse angle at its flexure, bent inward near this, straight from thence to the tip; lower cross-vein with two curves which are very indistinct : alulæ whitish. Length of the body $2\frac{3}{4}$ lines ; of the wings $5\frac{1}{2}$ lines.

Brazil.

Sarcophaga incerta.

Nigra ; caput læte auratum, subtus canum ; thorax albo sexvittatus ; abdomen albo nigroque tessellatum, apice rufo ; alæ subcinereæ, basi obscuriores.

Black : *head bright gold-colour, hoary and clothed with white hairs beneath and behind ;* frontalia deep black, widening towards the feelers ;

foveæ whitish: mouth, palpi and feelers black; third joint of the feelers pitchy: *chest with six white stripes*, the outermost pair irregular, connected in front with the next pair: *abdomen tessellated with white and black; tip deep red:* legs black; thighs with a white covering beneath: *wings pale gray, darker at the base;* veins black: alulæ whitish: halteres tawny. Length of the body 4½ lines; of the wings 9 lines.

Jamaica.

Sarcophaga aurifinis.

Nigra; caput læte auratum, facie alba; thorax cano quadrivittatus, lateribus albo vittatis; abdomen e maculis albis quadrivittatum, apice rufo-aurato; tibiæ piceæ; alæ subcinereæ.

Black: *head bright gold-colour*, clothed with black hairs; frontalia dull black, hardly widening towards the feelers; *face white:* mouth, palpi, and feelers black: mouth clothed with short yellow hairs: *chest with four hoary dorsal stripes and with a short white stripe on each side:* breast hoary: *abdomen tessellated with four rows of white spots; tip red with a bright gold-colour covering:* thighs with a hoary tinge; *shanks pitchy: wings slightly gray;* veins black: alulæ white: halteres tawny, with pale yellow knobs. Length of the body 3½—4½ lines; of the wings 7—9 lines.

Brazil.

Sarcophaga cognata.

Nigro-ænea; caput læte auratum, facie alba; thorax vittis sex auratis; abdomen cyaneo-nigrum, e maculis albis quadrivittatum, apice rufo; tibiæ piceæ; alæ subcinereæ.

Bronze-black: head with a bright gold covering, clothed with black hairs; frontalia black, very slightly decreasing in breadth from the eyelets to the feelers; disk of the face white: mouth pitchy; palpi and feelers black: chest with six pale gold stripes, outermost pair short: breast hoary: abdomen bluish-black, tessellated with four rows of white spots; tip red: legs black; shanks pitchy: wings slightly gray; veins black: alulæ whitish: halteres tawny. Length of the body 3¼—4½ lines; of the wings 7—9½ lines.

South America.

Sarcophaga sericea.

Cinerea; caput flavo-album; palpi fulvi; antennæ articulo 3o ferrugineo; thorax nigro trivittatus; abdomen canum, tessellatum, apice nigro; alæ limpidæ.

Cinereous: head shining, *yellowish white*, clothed behind and beneath with white hairs; frontalia broad, grayish black, widening from the eyelets to the feelers, minutely striated: mouth pitchy; *palpi tawny: third joint of the feelers dark ferruginous: chest with three black stripes and with two gray streaks: abdomen hoary, tessellated*, shining; *tip black:* legs black; hips and thighs with a hoary tinge; shanks gray: *wings colourless;* veins black, tawny at the base: alulæ white: halteres tawny. Length of the body 4½ lines; of the wings 9 lines.

East Indies.

Sarcophaga fulvivitta.

Nigra; caput pallide auratum; palpi ferruginei; thorax vittis quatuor auratis; abdomen canum, nigro tessellatum, apice nigro; alæ subcinereæ.

Black: *head pale gold-colour*, clothed behind and beneath with pale yellow hairs; frontalia deep black: *palpi ferruginous:* feelers black: *chest with four very slightly gilded stripes, each inner one inclosing a blackish streak: breast hoary: abdomen hoary, tessellated with black; tip black:* legs black: *wings very slightly gray;* veins black: alulæ whitish with pale buff borders: halteres tawny. Length of the body 4 lines; of the wings 8 lines.

South America.

Sarcophaga calida? *Wied.*

Nigra; caput auratum, facie alba; thorax vittis quatuor vix auratis; abdomen subauratum, nigro tessellatum, apice nigro; alæ subcinereæ.

Sarcophaga calida? *Wied. Ausseur. Zweiflüg. Ins.* ii. 366, 24.

Black: *head pale gold-colour, white about the face*, clothed behind and beneath with white hairs; frontalia black, narrow, slightly widening towards

the feelers: mouth, palpi and feelers black: *chest with four hardly gilded stripes, the outer pair almost interrupted by a black streak: abdomen pale gold-colour, tessellated with black; tip black:* legs black: *wings pale gray;* veins black; præbrachial vein slightly bent inward near the flexure, straight from thence to the tip; lower cross-vein with two very slight curves, the lower inward, the upper outward: alulæ white: halteres tawny. Length of the body 2½ lines; of the wings 5 lines.

Columbia.

Sarcophaga contermina.

Nigra, cano-tomentosa; caput albo-tomentosum, ad oculos auratum; thorax fusco trivittatus, lateribus nigro vittatis; abdomen cinereum, cano varium; alæ subcinereæ.

Black, *with a hoary covering: head with a white covering, gilded along the eyes in front;* frontalia deep black, linear, deep red towards the feelers: palpi and feelers black: *chest with three broad brown stripes, and with a black stripe on each side; abdomen cinereous with hoary reflections:* legs black: *wings slightly gray;* veins black; præbrachial vein forming a right angle at its flexure, bent inward near this, straight from thence to the tip; lower cross-vein very slightly bent inward: alulæ white. Length of the body 2½ lines; of the wings 4½ lines.

Brazil.

Sarcophaga bifrons.

Nigra; caput argenteum; thorax cano quadrivittatus; abdomen canum, subtessellatum, apice nigro; alæ subcinereæ.

Black: *head silvery white*, clothed beneath and behind with tawny hairs, *gilded on each side of the peristoma; frontalia deep ferruginous*, slightly widening towards the feelers: mouth, palpi, and antennæ black: mouth clothed with tawny hairs: *chest with six hoary stripes, the innermost pair very slender: sides and* breast hoary: *abdomen hoary, somewhat tessellated; tip black:* legs black; thighs with a hoary covering: *wings very slightly gray;* veins black, tawny at the base: alulæ whitish with yellow borders: halteres tawny. Length of the body 4½ lines; of the wings 9 lines.

South America.

Sarcophaga assidua, Mas et Fem.

Nigra, cano-tomentosa; caput albo-tomentosum; thorax fusco quinque-vittatus; abdomen cinereum; pedes fulvi, tarsis nigris; alæ subcinereæ.

Black, *with a hoary covering: head with a white covering;* frontalia deep black: palpi and feelers black: *chest with five brown stripes*, the inner pair very slender, indistinct: *abdomen cinereous, with reflections: legs tawny; feet black: wings very slightly gray;* veins black, tawny at the base; præbrachial vein forming a hardly obtuse angle at its flexure, bent inward near this, straight from thence to the tip; lower cross-vein very slightly bent inward near the base, straight from thence to the tip: alulæ white. Length of the body $2\frac{3}{4}$ lines; of the wings 5 lines.

Var. β. Second joint of the feelers red; third red at the base.

United States.

Sarcophaga fulvipes.

Cana; antennæ basi ferrugineæ; thorax nigro trivittatus; abdomen nigro tessellatum, apice rufo; pedes fulvi, tarsis nigris; alæ subcinereæ.

Hoary: head clothed with black hairs; frontalia broad, linear, deep black; facialia and foveæ white: mouth pitchy, ferruginous towards the base; palpi black: *feelers* black; *first and second joints ferruginous: chest with three bronze-black stripes: abdomen tessellated with black; tip pale red: legs tawny; feet black: wings very slightly gray;* veins black; præbrachial vein slightly bent inward and almost angular near its flexure, nearly straight from thence to the tip: alulæ white: halteres tawny. Length of the body $2\frac{3}{4}$ lines; of the wings 6 lines.

United States.

Sarcophaga basalis.

Nigra; caput argenteum; palpi fulvi, apice nigri; antennæ basi ferrugineæ; thorax canus, vittis quinque nigris; abdomen nigro canoque tessellatum, apice fulvum; pedes fulvi, tarsis nigris; alæ subcinereæ.

Black: *head silvery white*, clothed behind and beneath with white hairs; frontalia reddish brown, linear; lateralia partly red: mouth pitchy;

palpi tawny with black tips : feelers black ; *first and second joints ferruginous ;* third with a gray covering : *chest with a hoary covering which is interrupted by five black stripes, the three inner stripes very slender : abdomen black and hoary, tessellated ; tip tawny : legs tawny ; feet black ; foreshanks ferruginous : wings very pale gray ;* veins black ; præbrachial vein forming a right angle at its flexure, curved inward near this, almost straight from thence to the tip ; lower cross-vein with two very slight curves, the lower inward, longer than the upper which is outward ; alulæ white. Length of the body $4\frac{1}{2}$ lines ; of the wings 9 lines.

United States.

Sarcophaga pallipes.

Cana ; palpi fulvi ; antennæ articulis 1*o et* 2*o apice ferrugineis ; thorax nigro-æneo quinquevittatus ; abdomen e maculis nigris quadrivittatum, apice rufo ; pedes fulvi, tarsis nigris ; alæ subcinereæ.*

Hoary : head clothed behind and beneath with white hairs ; frontalia bronze-black, linear ; mouth pitchy ; *palpi tawny : feelers* black ; *first and second joints with ferruginous tips : chest with five bronze-black stripes ; abdomen tessellated with four rows of black spots ; tip deep red : legs tawny ;* shanks darker than the thighs ; *feet black : wings slightly gray ;* veins black ; præbrachial vein much bent inward and almost angular near its flexure, straight from thence to the tip ; lower cross-vein with two curves, the lower inward, the upper outward : alulæ white : halteres tawny. Length of the body 3 lines ; of the wings $6\frac{1}{2}$ lines.

United States.

Sarcophaga chrysotelus.

Nigra ; caput læte auratum, facie alba ; thorax cano quinquevittatus : abdomen cinereum, nigro tessellatum, apice pallide aurato ; alis sublimpidis, venis fusco marginatis.

Black : *head bright gold-colour,* clothed behind and beneath with white hairs ; frontalia deep black, broader towards the feelers ; *face white ;* mouth tawny towards the tip, clothed with tawny hairs ; palpi and feelers black ; third joint of the feelers reaching the epistoma : *chest with five*

hoary stripes; the inner pair slender: breast hoary: *abdomen cinereous, tessellated with black; tip pale gold-colour:* legs black; thighs with a hoary covering: *wings almost colourless; borders of the veins tinged with brown:* alulæ white: halteres yellow. Length of the body $4\frac{1}{2}$ lines; of the wings 9 lines.

South America.

Genus MUSCA, *Linn.*

The species here described will form the following groups:—

a. Mouth slender Stomoxys.

b. Præbrachial vein forming a very obtuse angle at its flexure.
cuprea.

b b. Præbrachial vein forming a very gentle curve at its flexure.
occidentis, concolor.

a a. Mouth thick.

b. Sixth feeler-joint feathered with short hairs, downy towards the tip.
divisa.

b b. Sixth feeler-joint feathered with long hairs.

c. Third feeler joint soft Calliphora.

d. Præbrachial vein forming a hardly acute angle at its flexure.
incerta.

d d. Præbrachial vein forming a right angle at its flexure.
aucta.

d d d. Præbrachial vein forming a right but not sharply defined angle at its flexure.
violacea, inducta.

d d d d. Præbrachial vein forming a slightly obtuse angle at its flexure.
suffusa.

c c. Third feeler-joint rigid.

d. Facialia without bristles.

e Præbrachial vein forming a right angle at its flexure..... Chrysomyia.
turbida, fasciata.

e e. Præbrachial vein forming an obtuse angle at its flexure.
purpurea, polita.

d d. Facialia bristly at the base.

e. Præbrachial vein forming an angle at its flexure.

f. Colour metallic.
g. Præbrachial vein forming a right angle at its flexure Lucilia.
hebes, felix.
g g. Præbrachial vein forming a hardly obtuse angle at its flexure.
bicolor.
g g g. Præbrachial vein forming a slightly obtuse angle at its flexure.
leucocephala, serenissima, insularis, temperata, proxima, bigemmis.
g g g g. Præbrachial vein forming an obtuse angle at its flexure.
h. Præbrachial vein not rounded at its flexure.
varia.
h h. Præbrachial vein rounded at its flexure.
connexa.
f f. Colour not metallic.
g. Præbrachial vein forming a right angle at its flexure.
placida.
g g. Præbrachial vein forming an obtuse angle at its flexure.
interrupta, contigua, dubia.
g g g. Præbrachial vein forming a very obtuse angle at its flexure.
costalis, determinata.
e e. Præbrachial vein forming a gentle curve at its flexure.
f. Colour metallic Pyrellia.
chrysotelus, obscura, distincta, basalis, occidentis, extrema.
f f. Colour not metallic Graphomya.
g. Third feeler-joint about thrice the length of the second.
stipata.
g g. Third feeler-joint more than twice the length of the second.
vicaria, serva.

Musca cuprea.

Purpureo-cuprea; caput testaceum; pectus cinerascens; abdomen testaceum; antennæ fulvæ, articulo 3o supra piceo; pedes fulvi, tarsis nigris; alæ subcinereæ.

Fem. Purplish coppery; head testaceous, frontalia tawny, linear; epistoma prominent: mouth black, shining; *palpi tawny*, long, slender: *feelers tawny; third joint pitchy above*, less than twice the length of the second, not nearly reaching the epistoma; sixth joint black, long, slender.

more than twice the length of all the preceding joints: breast with a cinereous covering: *abdomen testaceous*, elliptical, a little shorter and broader than the chest: *legs tawny; feet black: wings very slightly gray;* veins black, tawny at the base; præbrachial vein forming a very obtuse angle at its flexure, beyond which it is hardly inclined inward, approaching very near the tip of the cubital vein; lower cross-vein with the two usual curves, the lower inward one rather deeper than the other: alulæ dingy white with luteous borders. Length of the body $3\frac{3}{4}$ lines; of the wings 7 lines.

South Australia.

Musca occidentis.

Nigra, canescens; caput album; thorax fusco quadrivittatus; abdomen cinereum, fusco sexmaculatum; genua fulva; alæ sublimpidæ.

Fem. Head with a white covering; frontalia broad, black, ferruginous towards the feelers; facialia without bristles; epistoma slightly prominent: eyes bare: mouth a little shorter than the chest; palpi long, slender, tawny: feelers black, with a hoary covering; third joint deep, almost truncated at the tip, not reaching the epistoma, more than twice the length of the second; sixth tawny, stout towards the base, feathered almost to the tip with long hairs, longer than the third: *chest with a hoary covering and with four brown stripes: abdomen cinereous*, obconical, not longer than the chest; *second and third segments with three brown spots, the middle one in advance, larger than the other two:* legs black; knees tawny: *wings almost colourless;* veins black, tawny at the base; præbrachial vein forming a very gentle curve at its flexure, very slightly bent inward towards the tip, joining the border below the tip of the wing; lower cross-vein very slightly bent inward in the middle: alulæ white: halteres pale yellow. Length of the body 3 lines; of the wings 6 lines.

United States.

Musca concolor.

Cinerea; caput flavo-album; thoracæ nigro quadrivittatus; abdomen nigro tessellatum; antennæ piceæ, basi ferrugineæ; pedes nigri: alæ sublimpidæ, basi subfulvæ, ad costam subfuscæ.

Cinereous: head yellowish white in front and beneath, white behind, clothed beneath with white hairs; frontalia black or hoary according to the direction in which they are viewed, broad, linear, inclosing a short cinereous stripe; epistoma prominent: mouth black, shining; palpi tawny: *feelers pitchy; first and second joints dark ferruginous;* third rather deep, almost truncated at the tip, more than twice the length of the second, not reaching the epistoma; fifth distinct; sixth stout towards the base, feathered with long hairs, not much longer than the third: *chest with four interrupted black stripes: abdomen tessellated with black*, obconical, not longer than the chest: legs black; thighs and shanks with a cinereous covering; knees tawny: *wings almost colourless, with a tawny tinge at the base, pale brown along part of the fore border;* veins black, tawny towards the base; *præbrachial vein slightly curved;* lower cross-vein with three very slight curves, the middle one inward, much longer than the other two which are outward: alulæ white: halteres pale luteous. Length of the body $2\frac{3}{4}$ lines; of the wings $5\frac{1}{2}$ lines.

South America.

Musca divisa.

Aureo-viridis; caput flavum; abdomen fulvum, nigro vittatum; antennæ luteæ; pedes nigri, tibiis ferrugineis; alæ subcinereæ.

Fem. Head pale yellow, with a silky white covering, clothed beneath and behind with white hairs; *frontalia yellow*, linear; facialia without bristles; epistoma prominent: eyes bare: proboscis black; *palpi luteous: feelers luteous;* third joint almost spindle-shaped, not nearly reaching the epistoma, full twice the length of the second; sixth feathered with short hairs, black and merely pubescent towards the tip, full twice the length of the third: *chest golden green, with a white covering: abdomen tawny, with an irregular interrupted black stripe:* legs black; *shanks ferruginous:*

wings slightly gray; veins black, yellow at the base; præbrachial vein forming a very obtuse angle at its flexure, very slightly bent inward beyond the middle: lower cross-vein slightly bent outward, straight near the base: alulæ white: halteres pale yellow. Length of the body $2\frac{1}{2}$ lines; of the wings 5 lines.

East Indies.

Musca incerta.

Atra; thorax albo quadrivittatus, postice cyaneus; abdomen cyaneum; alæ subcinereæ, basi et ad costam obscuriores.

Deep black: head covered with white pubescence; frontalia deep black, linear; epistoma prominent: mouth pitchy; palpi black: feelers black; third joint covered with hoary pubescence, slightly decreasing in depth from the base to the tip, reaching the epistoma, more than four times the length of the second; sixth joint feathered for half its length from the base: *chest with four white stripes; hind part blue: abdomen blue, partly green or purple:* legs black: *wings pale gray, a little darker at the base and along part of the fore border:* veins black; præbrachial vein forming a hardly acute angle at its flexure, much curved inward and almost angular near this, nearly straight from thence to the tip; lower cross-vein with two curves, the upper one outward, much deeper than the lower one which is inward: alulæ dark gray, with white borders: halteres pitchy. Length of the body $4\frac{1}{4}$ lines; of the wings 9 lines.

Columbia.

Musca aucta.

Cinereo-nigra; caput canum; thorax nigro quinquevittatus; abdomen viridi-cyaneum; antennæ piceæ, basi ferrugineæ; alæ subcinereæ.

Fem. Black, with a gray covering: head with a hoary covering; frontalia broad, black, slightly widening towards the feelers; facialia ferruginous, beset with very short bristles along half the length from the base; epistoma tawny, slightly prominent: *palpi tawny: feelers pitchy; first and second joints ferruginous;* third linear, rather deep, rounded at the tip, reaching the epistoma, more than four times the length of the second; sixth black, feathered along full two-thirds of the length, much longer

than the third: *chest with five indistinct and interrupted black stripes: abdomen dull greenish blue, with slight white reflections*, a little shorter and broader than the chest: legs black: *wings slightly gray;* præbrachial vein forming a right angle at its flexure, much bent inward near this, almost straight from thence to the tip; lower cross-vein with the two curves which are distinct: alulæ gray, with white borders: halteres tawny. Length of the body $3\frac{1}{2}$ lines; of the wings 8 lines.

Madras or Calcutta.

Musca violacea.

Cinereo-nigra; abdomen purpureum; alæ cinereæ, basi nigricantes.

Head wanting: *chest black, tinged with gray:* breast with a luteous scapula on each side of the fore part, and another on each side of the hind part: *abdomen purple:* legs black: *wings gray, blackish at the base;* præbrachial vein slightly curved inward near the flexure, where it forms a right but not sharply defined angle, straight from thence to the tip, their junction rounded; lower cross-vein with two curves, the upper outward, deeper and shorter than the lower which is inward: alulæ dark gray with pale borders: halteres tawny with whitish tips. Length of the body 6 lines; of the wings 14 lines.

New Zealand.

Musca inducta.

Cyanea; caput albidum; antennæ piceæ; pedes nigri; alæ cinereæ.

Fem. Blue, tinged with green and purple: head with a white covering; frontalia pitchy, their disk ferruginous in front; facialia ferruginous, beset with very short bristles; epistoma ferruginous, prominent; lateralia ferruginous: eyes bare: *palpi tawny: feelers pitchy; third joint* linear, *ferruginous at the base*, rounded at the tip, more than thrice the length of the third, nearly reaching the epistoma; sixth feathered nearly to the tip, very much longer than the third: scutcheon and abdomen mostly blue and purple: legs black: *wings gray;* veins black, pitchy at the base; præbrachial vein forming a right but not sharply defined angle at its flexure, beyond which it is bent inward; lower cross-vein very slightly undulating: alulæ gray. Length of the body 4 lines; of the wings 9 lines.

East Indies.

Musca suffusa.

Purpureo-cyanea ; caput albidum ; antennæ ferrugineæ ; pedes nigri ; alæ cinereæ, basi et ad costam obscuriores.

Blue, varied with purple : head with a white covering ; frontalia black and a little narrower towards the feelers ; facialia, epistoma, lateralia and *palpi tawny :* eyes bare : *feelers ferruginous, darker above : chest partly green*, with a slight hoary tinge : abdomen a little broader and shorter than the chest : legs black : *wings gray, darker at the base and along part of the fore border ;* veins black ; middle cross-vein clouded ; præbrachial vein forming a slightly obtuse angle at its flexure, slightly bent inward at a little before half the distance from thence to its tip ; lower cross-vein very slightly bent outward towards the tip : alulæ gray with whitish borders. Length of the body 3½ lines ; of the wings 8 lines.

Brazil.

Musca turbida.

Viridi-cyanea ; caput auratum ; thorax albidus, bivittatus ; antennæ luteæ, apice supra ferrugineæ ; tibiæ ferrugineæ ; tarsi nigri ; alæ cinereæ, basi nigricantes.

Blue, partly green : head with a pale gold covering, tawny in front, clothed beneath and behind with yellow hairs ; crown black on each side ; frontalia ferruginous, linear ; epistoma prominent : mouth black, pitchy towards the tip ; *palpi tawny : feelers luteous ; third joint ferruginous above ;* sixth joint black : *chest* with a slight whitish covering *which is interrupted by two slender stripes :* legs green ; *shanks dark ferruginous ;* feet black : *wings gray, blackish at the base ;* veins black ; præbrachial vein much curved inward beyond its flexure ; lower cross-vein with two equally slight curves : alulæ grayish, white at the base. Length of the body 4 lines ; of the wings 8 lines.

Jamaica.

Musca fasciata.

Viridis; caput luteum; thorax nigro trivittatus; abdominis segmenta purpureo fasciata; antennæ luteæ; pedes nigri, tibiis ferrugineis; alæ cinereæ.

Green: head luteous; frontalia pale ferruginous: *feelers luteous: chest with three black stripes: abdomen with a purple band along the hind border of each segment;* under side with white reflections: legs black; *shanks ferruginous: wings gray;* veins black; præbrachial vein forming a right angle at its flexure, curved inward near this, straight from thence to the tip; lower cross-vein with the two curves, the upper one more distinct than the lower: alulæ white, with pale yellow borders: halteres yellow. Length of the body 3¼ lines; of the wings 6½ lines.

Brazil.

Musca purpurea, Mas.

Cyaneo-purpurea; caput auratum; thorax antice æneo-viridis; antennæ luteæ, articulo 3o supra ferrugineo; pedes picei; alæ cinereæ, basi et ad costam nigricantes.

Purple, partly blue: head pale gold-colour, clothed behind and beneath with yellow hairs; *face whitish:* eyes with large facets on the upper part: mouth pitchy; *palpi yellow: feelers luteous; third joint ferruginous above,* four times the length of the second; sixth blackish towards the tip: *fore part of the chest æneous-green with a hoary covering;* a luteous scapula on each side of the fore-breast: *legs pitchy; wings gray, blackish at the base and along the fore border;* veins black; præbrachial vein slightly curved inward beyond its flexure; lower cross-vein much curved outward: alulæ slightly testaceous: halteres yellow. Length of the body 3½ lines; of the wings 7 lines.

South America.

Musca polita, Mas.

Aureo-viridis; caput thoracisque latera cyaneo et purpureo varia; abdomen cyaneo-viride, lateribus purpureum; antennæ luteæ; pedes nigri; alæ limpidæ.

Golden-green: eyes red, composed of very large facets, with a triangular compartment of small facets on each side: mouth pitchy; *palpi and peristoma tawny: feelers luteous: head and sides of the breast tinged with blue and purple: abdomen bluish green, purple on each side:* legs black; onychia pale yellow: *wings colourless;* veins tawny; præbrachial vein rounded at the flexure, very slightly curved inward from thence to the tip; lower cross-vein with two very indistinct curves, the lower inward, the upper outward: alulæ straw-colour. Length of the body 3½ lines; of the wings 7 lines.

Var. β. Chest mostly blue and purple.

East Indies.

Musca hebes.

Cyaneo-purpurea; caput albidum; antennæ piceæ; pedes nigri; alæ cinereæ, basi fuscæ.

Purple, partly blue: head dull, with a white covering, clothed behind and beneath with short, white hairs; frontalia broad, dull black, linear; epistoma prominent: mouth pitchy; palpi dull tawny: *feelers pitchy:* legs black: *wings gray, dark brown at the base;* veins black; præbrachial vein much curved inward near its flexure; lower cross-vein with two equally slight curves: alulæ white: halteres pale tawny. Length of the body 3 lines; of the wings 6 lines.

Senegal?

Musca felix, Mas.

Cyaneo-viridis, purpureo varia; caput antice ferrugineum; abdomen basi nigricans; antennæ piceæ; pedes nigri; alæ sublimpidæ.

Bright bluish green: head with a white covering, ferruginous and clothed with white hairs *in front;* frontalia black: *palpi tawny: feelers*

pitchy; third joint not reaching the epistoma; *fourth, fifth, and sixth tawny: scutcheon and abdomen partly purple; first segment of the abdomen blackish: second and third coppery purple along the hind borders:* legs black: *wings almost colourless;* veins black; præbrachial vein forming a right angle at its flexure, much bent inward from thence to its tip; lower cross-vein with the two curves, the lower deeper than the upper which is very slight: alulæ white. Length of the body 3 lines; of the wings 6 lines.

Canary Islands.

Musca bicolor, Mas.

Viridis; abdomen cyaneo-purpureum; antennæ nigræ; pedes picei, tarsis nigris; alæ subcinereæ.

Dark green, hairy: *head with a white covering;* facialia ferruginous, beset with very short bristles towards the base; epistoma prominent: eyes bare: *palpi pitchy:* feelers black; third joint slightly decreasing in depth beneath towards the tip, not reaching the epistoma, about thrice the length of the second; sixth feathered with very long hairs: *abdomen bluish purple: legs pitchy;* feet black: *wings slightly gray;* præbrachial vein forming a hardly obtuse angle at its flexure which emits a short branch, slightly curved inward near this, straight from thence to the tip; lower cross-vein with the two curves, the upper deeper than the lower: alulæ gray, with tawny borders: halteres tawny. Length of the body 3½ lines; of the wings 7 lines.

Musca leucocephala.

Cyaneo-viridis; caput argenteum, antice et subtus fulvum; abdomen purpureo varium; antennæ piceæ; pedes nigri; alæ cinereæ.

Bright bluish green: head with a silvery white covering, tawny in front and beneath; frontalia black, linear; epistoma not prominent: *mouth, palpi and feelers pitchy;* third joint of the feelers linear, very long, reaching the epistoma, more than four times the length of the second joint; sixth joint black, *tawny at the base*: chest with a slight white covering: *abdomen partly purple:* legs black; thighs blue towards the base: *wings gray;* veins black: præbrachial vein forming a slightly obtuse angle at

its flexure, almost straight from thence to the tip; lower cross-vein hardly undulating: alulæ white. Length of the body 4 lines; of the wings 8 lines.

Senegal?

MUSCA SERENISSIMA.

Aureo-viridis; caput album; antennæ piceæ, basi fulvæ; pedes nigri; alæ albidæ.

Very bright golden-green: head with a white covering: *feelers pitchy; first and second joints tawny;* third nearly reaching the epistoma: legs black: *wings whitish; veins tawny;* præbrachial vein forming a slightly obtuse angle at its flexure, nearly straight from thence to its tip; lower cross-vein straight along one-fourth of its length from the base, slightly curved outward from thence to the tip: alulæ white. Length of the body 3½ lines; of the wings 7 lines.

East Indies.

MUSCA INSULARIS.

Aureo-viridis; caput album; abdomen basi nigricans; antennæ fulvæ, articulo 3o supra piceo; pedes nigri; alæ subcinereæ.

Golden-green: head with a white covering; frontalia black, ferruginous towards the feelers: *palpi tawny: feelers tawny; third joint partly pitchy above,* nearly reaching the epistoma; sixth black: *first abdominal segment blackish:* legs black: *wings pale gray;* veins black; præbrachial vein forming a slightly obtuse angle at its flexure, very slightly bent inward from thence to the tip; lower cross-vein slightly bent outward near the tip: alulæ white. Length of the body 3 lines; of the wings 6½ lines.

West Indies.

MUSCA TEMPERATA, Fem.

Aureo-viridis; caput argenteo-fulvum, vertice cupreo; antennæ et pedes piceæ; alæ limpidæ.

Golden-green, with a whitish bloom: *head tawny with a silvery white covering,* clothed behind and beneath with white hairs; *crown coppery;*

frontalia black, broad, linear; epistoma prominent; mouth pitchy; *palpi tawny: feelers pitchy;* sixth joint black: *legs pitchy: wings quite colourless; veins tawny*, yellow at the base; præbrachial vein forming a slightly obtuse angle at its flexure, hardly curved inward from thence to the tip; lower cross-vein with two slight curves, the lower inward, less distinct than the other which is outward: alulæ white: halteres tawny. Length of the body $3\frac{1}{2}$ lines; of the wings 7 lines.

East Indies.

Musca proxima, Fem.

Cyanea; caput album; thorax antice viridis, scutello purpureo; abdomen purpureum, apice viride; antennæ nigræ, basi ferrugineæ; pedes nigri; alæ subcinereæ.

Blue: head with a white covering; frontalia black, linear: eyes bare: *palpi tawny: feelers black, ferruginous at the base;* third joint not nearly reaching the epistoma: *chest mostly green in front; scutcheon mostly purple: abdomen purple, green towards the tip:* legs black: *wings slightly gray;* præbrachial vein forming a slightly obtuse angle at its flexure, slightly bent inward near this, straight from thence to the tip; lower cross-vein with the two curves, the upper one deeper than the lower one: alulæ dingy white, with yellowish white borders: halteres pitchy. Length of the body $3\frac{1}{2}$ lines; of the wings 7 lines.

California.

Musca bigemmis, Mas.

Purpurea; caput purpureo-piceum; abdomen apice aureo-viride; antennæ et pedes picea; alæ sublimpidæ, basi nigricantes.

Purple: head purplish-pitchy, with a white covering, clothed behind and beneath with short white hairs, lurid on each side of the face; epistoma prominent: upper facets of the eyes a little larger than those elsewhere: mouth pitchy; *palpi ferruginous: feelers pitchy;* third joint almost reaching the epistoma: chest and abdomen with a slight hoary bloom; *abdomen golden-green towards the tip: legs pitchy: wings almost colourless, blackish at the base;* veins black; præbrachial vein slightly curved outward near its flexure, straight from thence to the tip: lower cross-vein with the

two usual curves: alulæ dingy white with pitchy borders: halteres pitchy. Length of the body 3 lines; of the wings 6 lines.

Cape.

Musca varia.

Læte viridis; caput auratum; thorax antice albo quadrivittatus; scutellum et abdomen cyaneo-viridia; pectoris latera et abdomen subtus albo maculata; antennæ fulvæ; pedes nigri; alæ subcinereæ, basi nigræ.

Bright green: head with a gold covering; frontalia pale red; epistoma prominent; facialia beset with bristles at the base; *palpi tawny: feelers tawny;* third joint not reaching the epistoma; sixth black: *chest with four white stripes in front: scutcheon and abdomen tinged with blue: sides of the breast and of the under side of the abdomen adorned with white spots:* legs black: *wings pale gray, black at the base;* veins black; præbrachial vein forming an obtuse angle at its flexure, very slightly curved inward near this, straight from thence to the tip; lower cross-vein straight with the exception of a slight outward curve along its upper half: alulæ white. Length of the body $2\frac{1}{2}$ lines; of the wings 5 lines.

South Australia.

Musca connexa, Fem.

Cyaneo-viridis, purpureo varia; abdomen apice aureo-viride; antennæ et pedes nigra; alæ subcinereæ.

Bluish-green, with a purple tinge here and there: head with a white covering; frontalia and facialia black; palpi black: feelers black; third joint nearly reaching the epistoma: *tip of the abdomen golden-green:* legs black: *wings very slightly gray;* veins black, tawny at the base; præbrachial vein rounded at its flexure, near which it is bent inward; lower cross-vein with a slight inward curve, straight at each end: alulæ white, with pale yellow borders. Length of the body 3—$3\frac{1}{2}$ lines; of the wings 6—7 lines.

Musca placida, Fem.

Purpurea; caput flavum; pectus cinereum, antice testaceum; abdomen cyaneo-purpureum, subtus et lateribus antice testaceum; antennæ nigræ, basi ferrugineæ; pedes testacei, tarsis nigris; alæ subcinereæ.

Purple: head yellow, clothed beneath and behind with yellow hairs, with a white stripe on each side behind along the eye; *crown blackish;* frontalia pitchy, widening much towards the feelers; facialia beset with short bristles; epistoma and peristoma prominent: proboscis black: *palpi tawny: feelers black; first and second joints ferruginous;* third linear, rounded at the tip, yellow at the base, not reaching the epistoma, about thrice the length of the second; *breast gray, testaceous in front: abdomen bluish-purple, testaceous beneath and on each side towards the base above: legs testaceous; feet black: wings slightly gray;* præbrachial vein forming a right angle at its flexure, slightly bent inward near this, straight from thence to the tip: lower cross-vein with the two curves which are slight: alulæ dingy white with yellow borders. Length of the body 3 lines; of the wings 6 lines.

South Australia.

Musca interrupta.

Atra; caput ferrugineo-argenteum; abdomen luteum, basi apice vittaque nigris; antennæ nigræ; pedes picei; alæ sublimpidæ.

Deep black: head with a silvery white covering, ferruginous on each side of the face, clothed with black hairs; *frontalia dark ferruginous, heart-shaped:* eyes thickly clothed with pale hairs; mouth, palpi and feelers black; third joint of the feelers a little longer than the second, not nearly reaching the epistoma: *second and third abdominal segments bright luteous with a black middle stripe; some whitish reflections towards the tip;* under side pale luteous: *legs pitchy: wings almost colourless;* veins black, tawny at the base; præbrachial vein forming an obtuse and not sharply defined angle at its flexure, very slightly inclined inward from thence to the tip; lower cross-vein irregularly and very slightly inclined inward: alulæ white: halteres tawny with pale yellow knobs. Length of the body 3 lines; of the wings 6 lines.

Cape.

Musca contigua.

Cinerea ; caput nigrum ; thorax nigro quadrivittatus ; abdomen subtessellatum, subtus rufum nigro vittatum ; pedes nigri ; alæ limpidæ.

Cinereous : head, mouth and feelers black ; third joint of the feelers much longer than the second, not reaching the epistoma which is very slightly retuse : *chest with four black stripes : abdomen slightly tessellated ; under side red with a black stripe :* legs black : *wings colourless ;* veins black, tawny at the base ; præbrachial vein forming an obtuse and not sharply defined angle at its flexure, very slightly curved inward from thence to the tip ; lower cross-vein very slightly inclined inward in the middle : alulæ white with pale yellow borders : halteres tawny. Length of the body 3 lines ; of the wings 6 lines.

United States.

Musca dubia, Mas.

Nigra ; thorax canus ; abdomen viride ; antennæ basi fulvæ ; alæ subcinereæ, basi subfuscæ.

Black : epistoma ferruginous, not prominent ; lateralia ferruginous : *palpi tawny : feelers* black ; *first and second joints tawny ; third* short, not nearly reaching the epistoma, *tawny at the base : chest with a hoary covering : abdomen green*, not longer than the chest : legs black : *wings slightly gray, pale brown at the base ;* veins black ; præbrachial vein forming an obtuse angle at its flexure, slightly bent inward from thence to the tip, joining the cubital vein near the tip of the latter ; lower cross-vein hardly bent inward along half the length, straight from thence to the tip : alulæ gray : halteres yellow. Length of the body 2 lines ; of the wings 4 lines.

South Australia.

Musca costalis, Fem.

Cana ; caput argenteum ; thorax nigro quadrivittatus ; antennæ nigræ, articulis 2o apice 3oque basi ferrugineis ; pedes nigri, coxis genubusque ferrugineis, tibiis subtus piceis ; alæ cinereæ, ad costam fuscæ.

Black, with a hoary covering : head with a silvery white covering, clothed beneath and behind with white hairs ; *frontalia deep reddish brown,*

linear; epistoma pale yellow, slightly prominent; facialia beset with bristles on each side of the peristoma and of the epistoma and along half the length of the face; lateralia ferruginous: mouth ferruginous, black towards the base; *palpi tawny:* feelers black; *second joint ferruginous at the tip; third* linear, with a hoary covering, *ferruginous at the base*, slightly rounded at the tip, full thrice the length of the second; fourth and fifth distinct; *sixth* black, very slender, feathered to the tip with very short hairs, *ferruginous and stout towards the base: chest with four black stripes: abdomen* obconical, not longer than the chest, *with hoary reflections:* legs black; hips and knees ferruginous; thighs and shanks with a hoary tinge; shanks pitchy beneath: *wings gray, dark brown along the fore border from one-third* of the breadth to four-fifths of the length; *veins* pitchy, tawny at the base, *bordered with pale brown;* præbrachial vein forming a very obtuse angle at its flexure, hardly inclined inward from thence to its tip, approaching very near the tip of the cubital vein; lower cross-vein with a distinct inward curve: alulæ gray, with pitchy borders: halteres tawny. Length of the body $3\frac{1}{2}$ lines; of the wings $8\frac{1}{2}$ lines.

South America.

Musca determinata, Fem.

Cana; caput album; thorax nigro quadrivittatus; abdomen cinereum, basi fulvo bimaculatum; antennæ et pedes nigra; alæ subcinereæ, basi subfulvæ.

Black, with a hoary covering: head with a white covering; frontalia broad, black, narrower towards the feelers: eyes bare: palpi and feelers black: *chest with four black stripes: abdomen cinereous, with a large tawny spot on each side at the base:* legs black: *wings slightly gray, with a tawny tinge at the base;* præbrachial vein forming a very obtuse angle at its flexure, very slightly bent inward from thence to the tip; lower cross-vein almost straight: alulæ whitish, with pale yellow borders: halteres tawny. Length of the body $2\frac{1}{2}$ lines; of the wings 5 lines.

East Indies.

Musca chrysotelus, Mas.

Purpurea; caput antice atrum; abdomen apice flavum, subtus flavo bivittatum; antennæ et pedes nigra; tibiæ piceæ, posticæ ferrugineæ; alæ subfuscæ, apice et margine postico subcinereæ.

Purple, with a slight white covering: head clothed with black hairs; *face deep black;* epistoma not prominent: *mouth, palpi and feelers black;* third joint of the feelers more than twice the length of the second, approaching the epistoma: *tip of the abdomen bright yellow; under side with two yellow stripes: legs black; shanks pitchy; hind shanks ferruginous: wings slightly brown, pale gray towards the tips and along the hind border;* veins black; præbrachial vein forming a very gentle curve at its flexure, hardly curved inward from thence to the tip; lower cross-vein slightly undulating: alulæ gray: poisers pitchy. Length of the body 4 lines; of the wings 9 lines.

Musca obscura, Mas.

Viridi-cyanea; caput argenteum; thorax antice cano vittatus; abdomen subtus flavo bivittatum; antennæ piceæ; pedes nigri; alæ cinereæ.

Blue, more or less tinged with green: head with a silvery white covering; sides of the face and epistoma pitchy; epistoma prominent: upper facets of the eyes large: *mouth, palpi and feelers pitchy;* third joint of the feelers more than twice the length of the second, almost reaching the epistoma: *fore part of the chest with a broad hoary stripe: under side of the abdomen with two yellow stripes on the disk:* legs black: *wings gray;* veins black; præbrachial vein forming a very gentle curve at its flexure, very slightly curved inward from thence to the tip; lower cross-vein almost straight: alulæ and poisers white Length of the body $3\frac{1}{2}$ lines; of the wings 8 lines.

Senegal?

Musca distincta.

Purpureo-cyanea; abdomen subtus testaceum, nigro vittatum; antennæ piceæ; pedes nigri; alæ cinereæ.

Purplish-blue, clothed with black hairs and bristles: *face silvery white:* facets in front of the eyes rather larger than those elsewhere: *mouth and*

feelers pitchy : disk of the under side of the abdomen dull testaceous with a black stripe : legs black : *wings gray ;* veins black ; præbrachial vein forming a gentle outward curve beyond its flexure, very slightly inclined inward near its tip which is very near the tip of the cubital vein ; lower cross-vein almost straight, but with indications of the two usual curves : alulæ whitish with yellowish borders. Length of the body 3½ lines ; of the wings 8 lines.

Senegal?

Musca basalis.

Cyaneo-viridis ; caput argenteum, antice ferrugineum ; thorax antice canus ; abdomen subtus fusco bivittatum ; antennæ ferrugineæ, basi fulvæ ; pedes nigri ; alæ subcinereæ.

Bluish-green : head adorned with a silvery white covering, ferruginous in front ; epistoma not prominent : mouth black ; *palpi luteous : feelers tawny ; third joint ferruginous,* full twice the length of the second, almost reaching the epistoma ; *sixth joint* black, *tawny at the base : front of the chest with a hoary tinge : under side of the abdomen with two brown stripes on the disk :* legs black : *wings pale gray ;* veins black, tawny at the base ; præbrachial vein forming a very gentle curve at its flexure, almost straight from thence to the tip ; lower cross-vein with two slight curves : alulæ white. Length of the body 3½ lines ; of the wings 8 lines.

Jamaica.

Musca occidentis, Fem.

Cyaneo-viridis ; scutum postice purpureo varium ; scutellum et abdomen viridi-cyanea ; antennæ et pedes nigra ; alæ subcinereæ.

Bluish-green : head with a white stripe on each side in front along the eye, frontalia, palpi and feelers black : *hind part of the shield tinged with purple : scutcheon and abdomen greenish-blue :* legs black : *wings very slightly gray ;* veins black, tawny at the base ; præbrachial vein forming a gentle curve at its flexure, very slightly bent inward near the tip ; lower cross-vein slightly bent inward in the middle : alulæ white : halteres yellow. Length of the body 3½ lines ; of the wings 7 lines.

United States.

Musca extrema.

Cyaneo-viridis; caput albidum; antennæ nigræ; pedes nigri, femoribus viridibus; alæ sublimpidæ.

Green, more or less varied with blue: head with a slight whitish covering; frontalia deep black, forked towards the back of the head; epistoma prominent: mouth, palpi and feelers black; third joint of the feelers more than twice the length of the second, reaching the epistoma: legs black; thighs green: *wings almost colourless;* veins black, tawny at the base; præbrachial vein forming a very shallow curve at its flexure, hardly inclined inward from thence to its tip; lower cross-vein almost straight; alulæ gray: halteres white. Length of the body 2¼ lines; of the wings 5 lines.

Van Dieman's Land.

Musca stipata.

Nigra; caput album, nigro bivittatum; thorax flavo-albo quadrivittatus; pectus canum; abdomen aureo tessellatum, apice testaceum vittisque tribus nigris duabusque auratis ornatum; alæ sublimpidæ.

Black: head with a white covering; crown with two broad black stripes; epistoma slightly prominent: mouth, palpi and feelers black; third joint of the feelers about thrice the length of the second, nearly reaching the epistoma; sixth pitchy: *chest with four yellowish-white stripes,* the side pair interrupted: hind chest and breast hoary: *abdomen tessellated with pale gold-colour; tip dark testaceous, with three slender black stripes between two broad pale gold stripes:* legs black: *wings almost colourless;* veins black, tawny at the base; præbrachial vein forming a very gentle curve at its flexure, very slightly curved inward near the tip; lower cross-vein curved inward before the middle: alulæ white: halteres tawny. Length of the body 3½ lines; of the wings 7 lines.

Demerara.

Musca vicaria, Fem.

Cana; caput auratum, antice et subtus album; thorax nigro quadrivittatus; abdomen subcinereum, basi ferrugineum, segmentis 2o et 3o trivittatis, 4o bivittato; antennæ piceæ; pedes nigri; alæ subcinereæ.

Black, with a hoary covering: head gilded above, white in front and beneath: frontalia black, broad, linear; facialia without bristles; epistoma

not prominent: proboscis and palpi black: *feelers pitchy;* third joint more than twice the length of the second, not reaching the epistoma, slightly decreasing in depth from the base to the tip; sixth black, feathered with very long hairs, stout at the base: *chest with four black stripes: abdomen slightly cinereous, ferruginous at the base; second and third segments with three black stripes,* the side pair slightly oblique; *fourth with two black stripes:* legs black: *wings very slightly gray;* præbrachial vein forming a curve at its flexure, very slightly bent inward from thence to its tip; lower cross-vein straight till near the tip where it is bent outward: alulæ white with pale yellow borders. Length of the body 3 lines; of the wings 6 lines.

New Zealand.

Musca serva, Mas.

Cana; caput argenteum; thorax nigro quadrivittatus; abdomen fulvum, segmentis nigro fasciatis; antennæ nigræ, basi ferrugineæ; pedes fulvi, tarsis nigris; alæ subcinereæ.

Black: head with a silvery white covering; frontalia deep brown widening much towards the feelers, facialia without bristles; epistoma not prominent: *proboscis and palpi tawny: feelers* black; *first and second joints ferruginous;* third pubescent, almost truncated at the tip, not reaching the epistoma, more than twice the length of the second: sixth tawny, feathered along two-thirds of the length, black and thick at the base, about twice the length of the third: *chest with a hoary covering, and with four black stripes,* the side pair interrupted: *abdomen tawny; hind borders of the segments blackish: legs tawny; feet black: wings very slightly gray;* præbrachial vein forming a gentle curve at its flexure, hardly bent inward from thence to its tip; lower cross-vein with the two curves, the lower deeper than the upper: alulæ dingy white with pale yellow borders: halteres tawny. Length of the body $2\frac{1}{2}$ lines; of the wings 5 lines.

United States.

Genus IDIA, *Meigen*.

Idia varia.

(Group, Cosmina, *Desv.*)

Viridis; caput flavum; abdomen testaceum, lateribus albidum; antennæ luteæ; tibiæ ferrugineæ; tarsi nigri; alæ subcinereæ, ad venas fulvæ.

Green: head pale yellow, clothed behind and beneath with whitish hairs; *crown gilded;* frontalia darker, decreasing in breadth from the eyelets to the feelers; *optica and face white;* mouth ferruginous, black and shining towards the base; *palpi yellow: feelers luteous*; third joint much more than twice the length of the second; sixth joint tawny, blackish towards the base: chest with a whitish covering: *abdomen testaceous, with a whitish covering along each side: thighs green*, with a hoary covering; *shanks ferruginous; feet black: wings pale gray, tawny along the fore borders and along the veins; cross-veins clouded with pale brown; a large brown spot near the tip of the fore border:* alulæ white, with pale yellow borders: halteres yellow. Length of the body 3—3½ lines; of the wings 5½—6½ lines.

Ceylon?

Genus ANTHOMYIA, *Meigen*.

The species here described may be grouped thus:—

a. Alulæ rather large or of moderate size; lower valve extending beyond the upper.

b. Sixth feeler-joint feathered.

c. Abdomen oval Aricia.
præcipua, stupida, Indica, unicolor, subpunctata, solita, incerta, tarsalis, adjecta?

c c. Abdomen oblong or obconical Spilogaster.
terminalis, detracta, maculosa, maculipennis, tricolor.

b b. Sixth feeler-joint downy Limnophora.
fumosa, translata, addita, inserta, inducta, leucotelus, vicaria, introducta.

b b b. Sixth feeler-joint bare Ophyra.
indicata, aliena, adducta.

a a. Alulæ small; lower valve generally not extending beyond the upper.
b. Sixth feeler-joint feathered Hylemyia.
certa, despecta.
b b. Sixth feeler-joint downy Chortophila.
Maura, Œthiops, tenuior, Brasiliensis.
b b b. Sixth feeler-joint bare.
communis.

ANTHOMYIA PRÆCIPUA, Mas.

Nigra, cinereo-tomentosa; caput albo-tomentosum; antennæ piceæ; thorax nigro quadrivittatus, scutelli apice fulvo; pedes fulvi, tarsis nigris; alæ cinereæ, costa venisque fusco marginatis.

Black, with a cinereous covering: head with a white covering; frontalia deep black, widening much towards the feelers; facialia without bristles; epistoma slightly prominent: eyes bare, facets above rather large: mouth tawny beneath; palpi black: *feelers pitchy;* third joint linear, rounded at the tip, nearly reaching the epistoma, more than twice the length of the second; sixth slender, feathered with long hairs, tawny at the base, more than twice the length of the third: *chest with four black stripes; tip of the scutcheon tawny:* abdomen obconical, not longer than the chest, with a few bristle-bearing tubercles: *legs tawny; feet black: wings gray, brownish beneath the fore border and along the veins;* veins black, tawny at the base; lower cross-vein slightly bent inward in the middle: alulæ colourless with yellow borders: halteres yellow. Length of the body 4 lines; of the wings 9 lines.

Brazil.

ANTHOMYIA STUPIDA, Mas et Fem.

Cinerea; caput canum; palpi fulvi; antennæ nigræ; pedes fulvi, tarsis nigris; alæ subcinereæ, basi costaque subfulvis.

Cinereous: head hoary, white along the eyes; crown and lateralia cinereous; epistoma not prominent: mouth pitchy; *palpi tawny: feelers black;* third joint more than twice the length of the second, not reaching the epistoma: breast with an oblique tawny scapula on each side: *legs tawny; feet black: wings pale gray, with a slight tawny tinge at the base*

and along the fore border; veins black, tawny towards the base; lower cross-vein clouded with brown, with two curves, the lower inward and deep, the upper outward and very slight: alulæ white, with pale tawny borders: halteres pale tawny. Length of the body 3½—4 lines; of the wings 8—9 lines.

Var. β. Lower cross-vein not clouded; its inward curve not deeper than the other.

Var. γ. First and second joints of the feelers red; third red at the base: lower cross-vein not clouded, its inward curve not deep.

Var. δ. Lower cross-vein with a very indistinct outward curve at each end, and a distinct inward curve in the middle.

New South Wales.

Anthomyia Indica, Fem.

Nigra, cinereo-tomentosa; palpi nigri; antennæ piceæ, basi fulvæ; thorax nigro quadrivittatus, scutello fulvo; abdomen basi fulvum; pedes fulvi; alæ cinereæ, costa venisque fulvo marginatis.

Black, with a cinereous covering: frontalia deep black, broad, linear; facialia without bristles; epistoma not prominent: *palpi black: feelers pitchy; first and second joints tawny;* third linear, rounded at the tip, reaching the epistoma, more than twice the length of the second; sixth feathered with long hairs, tawny towards the base, twice the length of the third: *chest with four short and interrupted black stripes; scutcheon tawny; abdomen* obconical, a little broader but not longer than the chest, *tawny towards the base: legs tawny: wings gray, tawny beneath the fore border and along the borders of the veins;* veins tawny; fifth vein slightly bent near the tip; lower cross-vein bent inward and almost angular at one-third of the length from the base: alulæ gray with tawny borders: halteres tawny. Length of the body 3½ lines; of the wings 8 lines.

East Indies.

Anthomyia unicolor.

Cinerea; palpi antennæque nigra; thorax nigro quadrivittatus, scutelli apice fulvo; abdomen nigro subtessellatum; pedes fulvi, tarsis nigris; alæ subcinereæ, ad costam subfulvæ.

Gray: head clothed with black hairs; frontalia black, dull, broad; antennaria ferruginous; optica white; epistoma very slightly prominent: mouth pitchy; *palpi black: feelers black;* third joint about twice the length of the second, not reaching the epistoma: *chest with four slender black stripes,* the side pair interrupted; *scutcheon tawny at the tip and beneath: abdomen* obconical, *slightly tessellated with black,* a little broader but hardly longer than the chest: *legs tawny; feet black: wings pale gray, slightly tawny along the fore border;* veins black, tawny at the base; lower cross-vein slightly curved inward in the middle: alulæ whitish with pale yellow borders: halteres yellow. Length of the body 4 lines; of the wings 8 lines.

South America.

Anthomyia subpunctata.

Cinerea; palpi picei; antennæ nigræ; thorax lateribus scutellique margine fulvis; abdomen testaceum, vitta dorsali maculaque apicali nigris; pedes fulvi, tarsis nigris; alæ subcinereæ, basi costaque fulvis, venis fusco submarginatis.

Gray: head clothed with black hairs, white along the eyes; epistoma not prominent: mouth tawny; *palpi pitchy: feelers black;* third joint almost twice the length of the second, not reaching the epistoma: *sides of the chest tawny; scutcheon tawny with a black disk: abdomen testaceous,* obconical, not longer than the chest, *with a slender black stripe, and with a large black spot near the tip: legs tawny; feet black: wings pale gray, tawny at the base and along the fore border; veins* black, *slightly clouded with pale brown;* lower cross-vein with a slight inward lower curve and a hardly perceptible upper outward curve: alulæ and halteres tawny. Length of the body $3\frac{1}{2}$ lines; of the wings 8 lines.

Cape.

Anthomyia solita, Mas.

Cinerea; caput cano-tomentosum, palpis antennisque nigris, thorax nigro quadrivittatus; abdomen nigro tessellatum; alæ subcinereæ, venis transversis fusco marginatis.

Gray: head with a hoary covering; optica white; epistoma not prominent: mouth pitchy; palpi black, slender: feelers black; third joint slightly increasing in depth towards the tip, not reaching the epistoma, about twice the length of the second: fourth and fifth distinct; sixth slender, feathered with long hairs, stout towards the base: *chest with four black stripes: abdomen tessellated with black:* legs black; thighs and shanks with a hoary tinge: *wings pale gray;* veins black, tawny at the base; *cross-veins clouded with brown;* lower cross-vein with the two usual curves which are very slight: alulæ colourless with yellow borders: halteres luteous, with yellow knobs. Length of the body 3½ lines; of the wings 7½ lines.

United States.

Anthomyia incerta, Mas.

Nigra, cano-tomentosa; caput album; thorax cinereo quadrivittatus; abdomen cinereum, segmentis nigro quadrimaculatis; alæ subcinereæ, venis transversis subnebulosis.

Black, with a hoary covering: head with a white covering; frontalia black, very slender; facialia without bristles; epistoma not prominent: eyes bare: palpi and feelers black: *chest with four gray stripes: abdomen cinereous,* obconical, a little longer than the chest, *with four black spots on each segment:* legs black: *wings slightly gray;* veins black; *cross-veins slightly clouded;* lower cross-vein with the two curves which are distinct: alulæ white, with pale yellow borders: halteres tawny. Length of the body 3½ lines; of the wings 7 lines.

United States.

Anthomyia tarsalis, Fem.

Cana, nitens; *caput ferrugineum, albo-tomentosum ; antennæ nigræ, articulo 3o basi rufo ; thorax vittis duabus anticis nigris ; pedes testacei, tarsis nigris ; alæ limpidæ.*

Hoary, shining ; head ferruginous with a white covering: frontalia blackish ; ptilinum projecting; epistoma not prominent: mouth pitchy ; palpi black: *feelers black ; third joint red at the base*, nearly twice the length of the second joint ; fifth joint distinct ; sixth feathered with very short hairs: *fore part of the chest with two short black stripes ;* scutcheon testaceous beneath: *legs testaceous ; feet black : wings colourless ;* veins pitchy, luteous towards the base ; lower cross-vein with three very slight curves, the middle one inward, the other two outward: alulæ whitish with luteous borders: halteres yellow. Length of the body 3¼ lines; of the wings 7 lines.

United States.

Male. Palpi tawny: first and second joints of the feelers tawny ; third tawny towards the base ; sixth tawny, pitchy towards the tip, feathered with moderately long hairs: chest with four black stripes; scutcheon tawny, hoary at the base: outward curves of the lower cross-vein hardly perceptible. Length of the body 2½ lines ; of the wings 6 lines.

United States.

Anthomyia adjecta, Mas.

Nigra, hirta, cano-tomentosa ; caput album ; thorax nigro quadrivittatus, scutello cyaneo-nigro ; abdomen cyaneum, albo varium ; alæ subcinereæ.

Black, very hairy, with a hoary covering : head with a white covering ; frontalia deep black, widening much towards the feelers ; facialia without bristles; epistoma prominent: eyes hairy: palpi black: feelers black; third joint pitchy, linear, rounded at the tip, not reaching the epistoma, twice the length of the second ; sixth feathered, more than twice the length of the third : *chest with four black stripes ; scutcheon bluish-black : abdomen blue with white reflections*, a little shorter and hardly broader than the chest: legs black : *wings slightly gray ;* veins black ; lower cross-vein with a deep inward bend in the middle and a slight outward bend near the tip:

alulæ whitish, with dark brown borders, halteres black. Length of the body 4 lines; of the wings 10 lines.

Van Dieman's Land.

Anthomyia terminalis, Mas.

Nigra, cervino-tomentosa; caput et pectus cana; palpi fulvi; antennæ nigræ, basi ferrugineæ; abdomen basi vitta fasciisque nigricantibus; pedes fulvi, tarsis nigris; alæ subcinereæ, basi fulvescentes.

Head hoary; frontalia deep black, triangular, not much longer than broad: mouth black with a ferruginous tip; *palpi tawny*, slender: *feelers black; first and second joints ferruginous;* third linear, rounded at the tip, reaching the epistoma, full twice the length of the second; sixth feathered with long hairs: *chest with a fawn-colour covering: breast hoary: abdomen with a fawn-colour covering*, darker than the chest, *with a blackish stripe and with blackish bands on the sutures of the segments; base blackish; under side with a tawny stripe on each side towards the base: legs tawny; feet black: wings slightly gray, with an indistinct tawny tinge at the base;* veins black, tawny towards the base; lower cross-vein with two distinct curves, the lower inward, the upper outward. Length of the body 3½ lines: of the wings 7 lines.

United States.

Anthomyia detracta, Mas.

Nigra, cinereo-tomentosa; caput album; palpi flavi; antennæ nigræ, articulo 2o apice ferrugineo; abdomen basi testaceum; pedes fulvi, tarsis nigris; alæ sublimpidæ, basi et ad costam flavescentes.

Black, with a cinereous covering; head with a white covering; frontalia black; facialia without bristles; epistoma yellow, not prominent: eyes bare: mouth black, with a ferruginous tip; *palpi yellow: feelers black; second joint ferruginous at the tip*; third rather deep, linear, pubescent, truncated at the tip, almost reaching the epistoma, full twice the length of the second; sixth feathered with long hairs, almost twice the length of the third; breast hoary, with a testaceous scapula on each side in front: *abdomen* obconical, hardly longer than the chest, *testaceous towards the base: legs tawny; feet black: wings almost colourless, yellowish at the base and*

along part of the fore border: veins black, yellow towards the base: alulæ almost colourless: halteres yellow, with luteous knobs. Length of the body 3 lines; of the wings 7 lines.

East Indies.

Anthomyia maculosa, Mas.

Nigra, cinereo-tomentosa; caput album; antennæ piceæ; abdomen fusco quadrimaculatum; tibiæ fulvæ; alæ subcinereæ, fusco quadrimaculatæ.

Black, with a cinereous covering: head with a white covering; frontalia black; facialia without bristles; epistoma slightly prominent: mouth and palpi black; *feelers pitchy;* third joint linear, rounded at the tip, not reaching the epistoma, full twice the length of the second: sixth black, feathered with short hairs, much more than twice the length of the third: chest striped? breast with a pitchy scapula on each side in front: *abdomen* obconical, a little narrower than the chest; *second and third segments with two brown spots on each:* legs black; *shanks tawny: wings* slightly *gray, with four brown spots,* one on the disk near the base; the second on the tip of the second vein; the third and fourth on the cross-veins; veins black; lower cross-vein almost straight: alulæ white: halteres pale yellow, white in the middle. Length of the body 2¾ lines; of the wings 6 lines.

Brazil.

Anthomyia maculipennis, Fœm.

A. maculosa, Fœm.? *Nigra, flavescente-cano tomentosa; caput albidum; antennæ piceæ; thorax fusco quadrivittatus; abdomen fuscum, basi testaceum; alæ subcinereæ, fusco quinquemaculatæ.*

Black, with a yellowish-hoary covering: head with a whitish covering; crown yellowish hoary; frontalia black, linear, including a lanceolate yellowish hoary stripe; facialia without bristles; epistoma whitish, slightly prominent: eyes bare: mouth and palpi black: *feelers pitchy;* third joint linear, rounded at the tip, nearly reaching the epistoma, about twice the length of the second: sixth feathered with very long hairs, whitish towards the base, a little more than twice the length of the third: *chest with four brown stripes:* breast whitish, with a testaceous scapula on each side in

front: *abdomen brown*, almost oval, shorter and a little broader than the chest, *testaceous towards the base:* legs black; knees ferruginous: *wings slightly gray, with five brown spots*, one on the tip of the second vein; the second long, on the tip of the third vein; third and fourth on the cross-veins; fifth near the base; veins black, testaceous at the base; lower cross-vein almost straight: alulæ colourless, with yellow borders: halteres yellow. Length of the body $2\frac{1}{2}$ lines; of the wings 6 lines.

Brazil.

Anthomyia tricolor, Mas.

Fulva; caput argenteum; palpi fulvi; antennæ piceæ, basi fulvæ; thoraæ nigro fasciatus, scutello piceo; abdomen nigrum, basi maculisque duabus flavis; pedes nigri, tibiis anterioribus fulvis; alæ cinereæ, ad costam flavo-fuscæ.

Tawny: head with a silvery white covering; frontalia deep black; facialia without bristles; epistoma not prominent: eyes bare: *palpi* and tip of the mouth *tawny: feelers pitchy; first and second joints tawny;* third linear, rounded at the tip, almost reaching the epistoma, tawny towards the base, about thrice the length of the second; sixth feathered with rather long hairs, tawny at the base, much more than twice the length of the third: *chest and breast with white reflections: chest with a broad deep black band; scutcheon pitchy* except the tip: *abdomen black*, slightly obconical, a little longer and narrower than the chest; *first segment yellow; second with a yellow spot on each side of the hind border, tawny beneath: legs black; hips and anterior shanks tawny: wings gray, yellowish brown along the fore border;* veins black; lower cross-vein with the two curves which are very slight: alulæ pale gray with yellow borders: halteres yellow. Length of the body 3 lines; of the wings 6 lines.

Brazil.

Anthomyia fumifera.

Atra; caput argenteo maculatum; abdomen piceum; pedes picei, tibiis ferrugineis; alæ subcinereæ.

Deep black, clothed with black hairs and bristles: frontalia widening from the eyelets to the feelers; *a silvery spot at the base of the feelers;*

facialia white: mouth and palpi black; mouth clothed towards the tip with tawny hairs: feelers deep black; third joint almost linear, slightly concave above, rounded at the tip, much longer than the second; sixth pubescent for half the length from the base: scutcheon prominent: *abdomen pitchy: legs pitchy; shanks dark ferruginous;* fore-thighs armed with a tooth beneath near the tip which is ferruginous; fore-shanks slightly curved, slender at the base: *wings slightly gray;* veins black, tawny at the base; lower cross-vein slightly curved inward in the middle part: alulæ slightly lurid: halteres pitchy. Length of the body $3\frac{1}{3}$ lines; of the wings 7 lines.

Cape.

Anthomyia translata, Mas.

Nigro-ænea; caput albo-tomentosum; pectus et abdomen cano-tomentosa, hoc apice æneum nitens; tibiæ ferrugineæ; alæ cinereæ, venis transversis fusco-nebulosis.

Brassy-black, beset with bristles: *head with a white covering;* frontalia deep black, widening much towards the feelers; facialia without bristles; epistoma not prominent: eyes hairy: mouth and palpi black: feelers black; third joint linear, rounded at the tip, not reaching the epistoma, a little more than twice the length of the second; sixth slender, pubescent, more than twice the length of the third: *breast and abdomen with a hoary covering; abdomen* obconical, almost as long as the chest, *brassy and shining at the tip:* legs black; *shanks ferruginous,* darker towards the tips: *wings gray;* veins black, tawny towards the base; *cross-veins clouded with brown;* lower cross-vein almost straight: alulæ dingy white with yellow borders: halteres yellow. Length of the body $3\frac{1}{3}$ lines; of the wings 7 lines.

New South Wales.

Anthomyia addita, Fœm.

Nigra, cinereo-tomentosa; caput canum; thorax nigro quadrivittatus; abdominis segmenta nigro quadrimaculata; tibiæ ferrugineæ; alæ cinereæ, venis transversis fumosis.

Body black, with a cinereous covering: head with a hoary covering: frontalia brown, broad: facialia without bristles: epistoma not prominent:

mouth and palpi black: feelers black; third joint linear, rounded at the tip, almost reaching the epistoma, about thrice the length of the second; sixth slender, minutely pubescent, a little more than twice the length of the third: *chest with four black stripes: abdomen* oval, a little shorter than the chest, *with four irregular blackish spots on each segment:* legs black; thighs tinged with gray; *hips, shanks and tips of thighs ferruginous: wings gray;* veins black, tawny towards the base; *cross-veins clouded with dark brown;* lower cross-vein very slightly bent inward: alulæ dingy white with yellow borders: halteres tawny. Length of the body 3 lines; of the wings 6 lines.

New South Wales.

Anthomyia inserta, Mas.

Nigra, cinereo-tomentosa; caput album; thorax nigro quadrivittatus; abdomen fusco quadrimaculatum; tibiæ fulvæ; alæ subcinereæ, venis transversis nigro marginatis.

Black, with a cinereous covering: head with a white covering; facialia without bristles; epistoma not prominent: mouth and palpi black: feelers black, third joint linear, rounded at the tip, not reaching the epistoma, hardly twice the length of the second joint; sixth slender, pubescent, almost thrice the length of the third: chest with four blackish stripes: breast hoary: abdomen oval, shorter than the chest; second and third segments with two brown spots: legs black; thighs tinged with gray; knees and shanks tawny: wings pale gray; veins black, tawny at the base and along the fore border; cross-veins clouded with black; lower cross-vein almost straight, the two curves being very indistinct: alulæ whitish, with tawny borders: halteres tawny. Length of the body 3 lines; of the wings 6 lines.

South Australia.

Anthomyia inducta, Fœm.

Nigra, glauco-tomentosa; caput album; thorax fusco trivittatus; abdomen basi maculisque duabus testaceis, segmentis fusco trimaculatis; alæ subcinereæ, ad costam fuscæ, venis transversis fusco marginatis.

Body black, with a bluish hoary covering: head with a white covering; frontalia deep black, linear, slightly widening towards the feelers; facialia

without bristles; epistoma not prominent: eyes bare: mouth and palpi black: feelers black, with a hoary covering; third joint linear, rounded at the tip, almost reaching the epistoma, full thrice the length of the second; sixth very minutely pubescent, slender, about twice the length of the third; *chest with three brown stripes: abdomen* obconical, a little longer than the chest, *with three brown spots on each segment; first segment testaceous; second with a testaceous spot on each side:* legs black: *wings slightly gray, with a brown tinge along the fore border;* veins black; *cross-veins clouded with brown, tawny at the base;* lower cross-vein slightly bent inward: alulæ white: halteres yellow. Length of the body 2½ lines; of the wings 5 lines.

Brazil.

Anthomyia leucotelus, Mas.

Nigra, albo-tomentosa; caput argenteum; palpi picei; abdomen luteum, nigro vittatum, apice flavo-album nigro varium; alæ sublimpidæ.

Black, *with a whitish covering: head with a silvery-white covering;* epistoma not prominent: mouth and *palpi pitchy:* feelers black; third joint with a hoary covering, nearly thrice the length of the second, not reaching the epistoma; sixth very slender, minutely pubescent, stout and pitchy towards the base: scutcheon large: *abdomen luteous,* obconical, *with a black dorsal stripe,* a little broader but not longer than the chest; *tip yellowish white,* shining, *with two black obclavate stripes and with some black dots:* legs black: *wings almost colourless;* veins black, tawny at the base; lower cross-vein indistinctly undulating: alulæ white with pale yellow borders: halteres yellow. Length of the body 2¼ lines; of the wings 5 lines.

Brazil.

Anthomyia vicaria, Fœm.

Nigra, cinereo-tomentosa; caput album; thorax fusco trivittatus: abdominis segmenta fusco fasciata; alæ sublimpidæ.

Black, with a cinereous covering; head with a white covering; frontalia broad, black, linear, including a whitish lanceolate stripe; facialia without bristles; epistoma not prominent: eyes bare: mouth and palpi black:

feelers black; third joint linear, rounded at the tip, not reaching the epistoma, hardly twice the length of the second; sixth pubescent, slender, about twice the length of the third: *chest with three brown stripes: breast hoary: abdomen* oval, a little longer than the chest, *with a broad, short, interrupted brown stripe resting on the hind border and extending nearly to the fore border of each segment:* legs black: *wings almost colourless;* veins black, tawny towards the base; lower cross-vein with two slight curves, the lower outward, the upper inward: alulæ white: halteres yellow. Length of the body 2 lines; of the wings 4 lines.

Brazil.

Anthomyia introducta, Fœm.

Nigra, cinereo-tomentosa; thorax fusco trivittatus; abdomen basi fulvum; alæ subcinereæ.

Black, with a cinereous covering: frontalia brown, linear; facialia without bristles; epistoma not prominent: eyes bare: mouth and palpi black: feelers black, short; third joint truncated, rather deep towards the tip, not near reaching the epistoma, about twice the length of the second; sixth slender, microscopically pubescent, much more than twice the length of the third: chest with three slender brown stripes: abdomen obconical, not longer than the chest, dull tawny at the base: legs black; knees tawny: wings very pale gray; veins black, tawny towards the base; lower cross-veins very slightly bent inward: alulæ whitish: halteres yellow. Length of the body $1\frac{1}{2}$ line; of the wings 3 lines.

Anthomyia indicata, Mas.

Atra; caput argenteum; antennæ piceæ: abdomen nigro-viride; alæ limpidæ.

Deep black, shining: head with a silvery white covering above; antennaria testaceous; epistoma not prominent: mouth and palpi black: *feelers pitchy;* third joint more than twice the length of the second; sixth very slender, tawny towards the base; *abdomen greenish black,* obconical, not longer than the chest: legs black: *wings colourless;* veins tawny; lower cross-vein very slightly inclined inward in the middle: alulæ white with yellow borders: halteres ferruginous. Length of the body 3 lines; of the wings 6 lines.

East Indies.

Anthomyia aliena, Mas.

Atra; caput argenteum; thorax cano-tomentosus, nigro trifasciatus; abdomen fulvum, albo nigroque varium; alæ sublimpidæ.

Deep black: head with a silvery white covering; facialia without bristles; epistoma hardly prominent: eyes bare: proboscis and palpi black: feelers black; third joint linear, with a whitish covering, rounded at the tip, not nearly reaching the epistoma, full twice the length of the second; sixth slender, bare, full twice the length of the third: *chest with a hoary covering, which is interrupted by three broad, deep black bands: abdomen tawny, with white reflections which form a triangular spot on each segment; second and third segments with a black spot on the fore border, and an interrupted black band on the hind border; fourth hoary with two brown dots:* legs black: *wings almost colourless;* veins black, yellow towards the base; fifth very slightly bent towards the tip; lower cross-vein straight: alulæ white: halteres pale yellow. Length of the body 2½ lines; of the wings 5 lines.

East Indies.

Anthomyia adducta, Fœm.

Nigra, hirta; thorax cinereo trivittatus; abdomen nigro-cyaneum; alæ subcinereæ.

Black, hairy: frontalia deep black, broad; facialia without bristles; epistoma prominent: eyes bare: palpi black: feelers black; third joint deep, rounded at the tip, not reaching the epistoma, about twice the length of the second; sixth bare, slender, stout at the base, much more than twice the length of the third: chest with three indistinct gray stripes: abdomen dark blue: legs black: wings very slightly gray, veins black; lower cross-vein with the two curves which are very slight: alulæ gray. Length of the body 3 lines; of the wings 7 lines.

Van Dieman's Land.

Anthomyia certa, Fœm.

Cyaneo-nigra, æneo tincta; antennæ piceæ; alæ limpidæ.

Bluish-black, with a slight brassy tinge: frontalia deep black; facialia without bristles; epistoma very prominent: eyes bare: mouth and palpi black: feelers pitchy; third joint linear, almost truncated at the tip, reaching the epistoma, more than four times the length of the second; sixth very slender, feathered with rather long hairs, tawny at the base, very much longer than the third: chest bristly: abdomen oval, a little broader but not longer than the chest: legs black: wings colourless; veins black, yellow at the base; lower cross-vein almost straight: alulæ white: halteres tawny, with pitchy knobs. Length of the body $2\frac{1}{2}$ lines; of the wings 5 lines.

Brazil.

Anthomyia despecta, Fœm.

Nigra, cinereo-tomentosa; pectus canum; abdominis segmenta fusco trimaculata; pedes fulvi, femoribus obscurioribus, tarsis nigris; alæ subcinereæ, ad costam fuscæ.

Head wanting: *chest and abdomen black, with a cinereous covering:* chest striped? *breast hoary: abdomen* obconical, a little longer than the chest, *with three brown spots on each segment: legs tawny; thighs brownish about the middle; feet black; wings slightly gray, with a brown tinge beneath the fore border;* veins black, tawny towards the base; lower cross-vein almost straight: alulæ whitish: halteres yellow. Length of the body 2 lines; of the wings 4 lines.

Brazil.

Anthomyia maura, Fœm.

Nigra; caput albido-tomentosum; abdomen apice subtusque cinereum; pedes picei; alæ pallide fuscescentes.

Black, slightly shining: *head with a slight whitish covering;* antennaria dull black; epistoma not prominent: mouth, palpi and feelers black; third joint of the feelers much longer than the second; sixth slender, stout

at the base, very minutely pubescent: *abdomen* obconical, *cinereous at the tip and beneath*, a little broader but not longer than the chest: *legs pitchy: wings very slightly tinged with pale brown*; veins black, tawny at the base; lower cross-vein hardly inclined inward: alulæ dingy white with tawny borders: halteres tawny, with pitchy knobs. Length of the body 3 lines; of the wings 7 lines.

Cape.

ANTHOMYIA ÆTHIOPS, Fœm.

Nigra; caput antice fulvum, argenteo maculatum; antennæ piceæ; alæ sublimpidæ.

Black, shining: head tawny in front; frontalia deep black, broad, linear; a silvery white triangular spot above the base of the feelers; facialia without bristles; epistoma not prominent: eyes bare: mouth and palpi black: feelers pitchy, short; third joint nearly round, hardly longer than the second; sixth slender, minutely pubescent, more than four times the length of the third: legs black; fore-knees tawny: wings almost colourless; veins black, yellow at the base; lower cross-vein very slightly bent outward, rather remote from the border: alulæ whitish, small: halteres tawny. Length of the body 1½ line; of the wings 3½ lines.

Brazil.

ANTHOMYIA TENUIOR, Fœm.

Nigra, cinereo-tomentosa; caput album; palpi flavi; antennæ articulo 3o basi fulvo; thorax fusco trivittatus; abdomen basi subtusque flavum, segmentis fusco trimaculatis; pedes flavi, tarsis nigris; alæ subcinereæ.

Black, with a cinereous covering: head white; crown and frontalia cinereous, the latter whitish in front; facialia without bristles; epistoma not prominent: eyes bare: mouth black; *palpi yellow: feelers* black; *third joint* linear, rounded at the tip, *tawny at the base*, nearly reaching the epistoma, a little more than twice the length of the second; sixth slender, pubescent, much more than twice the length of the third; *chest with three brown stripes:* breast hoary: *abdomen* oval, a little longer than the chest, *yellow at the base and beneath, with three brown spots on each segment: legs*

yellow ; feet black : wings very slightly gray ; veins black, tawny towards the base ; lower cross-vein almost straight: alulæ whitish : halteres yellow. Length of the body 2 lines ; of the wings 4 lines.

Brazil.

ANTHOMYIA BRASILIENSIS, Fœm.

Nigra, cinereo-tomentosa ; caput albidum, aureo vittatum ; thorax fusco trivittatus ; abdominis segmenta fusco trimaculata ; pedes pallidi, femoribus fusco strigatis, tarsis nigris ; alæ subcinereæ.

Black, with a cinereous covering : head whitish ; crown slightly gilded ; frontalia blackish, broad, linear, *including a lanceolate slightly gilded stripe ;* facialia without bristles ; epistoma not prominent : mouth and palpi black : feelers black, with a hoary covering ; third joint slender, linear, rounded at the tip, reaching the epistoma, more than twice the length of the second ; sixth slender, pubescent, stout at the base, a little more than twice the length of the third : *chest with three brown stripes :* breast hoary : *abdomen* oval, a little longer than the chest, *with three brown spots on each segment : legs yellow ; thighs with a brown streak near each tip ; shanks tawny ; feet black ; fore-thighs pitchy* with a hoary covering : *wings slightly gray ;* veins black, tawny towards the base ; lower cross-vein almost straight : alulæ whitish : halteres yellow. Length of the body $2\frac{1}{4}$ lines ; of the wings $4\frac{1}{2}$ lines.

Brazil.

Eumyomma fasciapinnum Mg.

ANTHOMYIA? COMMUNIS, Fœm.

Nigra, cano-tomentosa ; palpi fulvi ; antennæ basi fulvæ ; abdomen piceum, basi, ventre marginibusque posticis fulvis ; pedes fulvi, tarsis nigris ; alæ limpidæ.

Black, with a hoary covering : facialia without bristles ; epistoma not prominent : eyes bare : mouth pitchy ; *palpi tawny : feelers tawny ; third joint black,* rather deep, rounded at the tip, nearly twice the length of the second ; sixth black, slender, bare, about thrice the length of the third : *abdomen pitchy,* obconical, with a slight hoary tinge, a little longer than the chest, *tawny at the base and beneath and along the hind borders of the segments : legs tawny ; feet black : wings colourless ;* veins tawny ; lower

cross-vein straight, almost upright, remote from the border: alulæ colourless with yellow borders: halteres luteous. Length of the body 1½ line; of the wings 3½ lines.

United States.

Genus CŒNOSIA, *Meigen.*

Cœnosia tarsalis, Fœm.

Nigra, cano-tomentosa: thorax fusco trivittatus; abdomen fusco vittatum: pedes fulvi, tarsis nigris; alæ sublimpidæ.

Black, *with a hoary covering;* frontalia deep black, broad, almost linear; facialia without bristles; epistoma hardly prominent: eyes bare: mouth and palpi black: feelers black, with a hoary covering; third joint linear, slender, slightly truncated at the tip, almost reaching the epistoma, more than twice the length of the second; fifth distinct, longer than the fourth; sixth minutely pubescent, stout towards the base, about twice the length of the third: *chest with three indistinct pale brown stripes:* abdomen elliptical, a little longer than the chest, *with a slender pale brown stripe; legs tawny; feet black: wings almost colourless;* veins tawny, black towards the tips; lower cross-vein almost upright, with two very indistinct curves, the lower outward, the upper inward: alulæ white with yellow borders: halteres yellow. Length of the body 2½ lines; of the wings 5 lines.

Cape.

Cœnosia antica, Mas.

Nigra, cano-tomentosa; caput antice album; antennæ piceæ; thorax fusco trivittatus; abdomen vitta dorsali maculisque quatuor fuscis; pedes fulvi, femoribus anticis tarsisque nigris; alæ sublimpidæ.

Black, *with a hoary covering: head with a white covering in front;* crown with a cinereous triangular spot; frontalia deep black, slightly decreasing in breadth towards the feelers; facialia without bristles; epistoma not prominent: eyes bare: *feelers pitchy;* third joint linear, truncated at

the tip, about twice the length of the second, not more than half the length of the face; sixth feathered with short hairs, bare at the tip, stout at the base, about four times the length of the third: *chest with three brown stripes: abdomen* almost cylindrical, a little longer and narrower than the chest, *with a brown stripe; second and third segments with a brown spot on each side: legs tawny; feet black; fore-thighs black, with tawny tips: wings almost colourless;* veins black, tawny towards the base; lower cross-vein slightly oblique, with two very indistinct curves, the lower outward, the upper inward: alulæ white; halteres yellow. Length of the body $1\frac{3}{4}$ line; of the wings $3\frac{1}{2}$ lines.

United States.

Cœnosia lata, Fœm.

Nigra, cano-tomentosa; caput antice album; thorax cervino trivittatus; pedes fulvi, femoribus anticis tarsisque nigris, femoribus posterioribus nigro strigatis; alæ sublimpidæ.

Black, *with a hoary covering: head with a white covering in front;* frontalia black, broad, almost linear, including on the hind part a short, lanceolate, cinereous stripe; facialia without bristles; epistoma not prominent: eyes bare: mouth and palpi black: feelers deep black; third joint linear, obliquely truncated at the tip, reaching the epistoma, more than twice the length of the second; sixth slender, feathered with short hairs, stout at the base, more than twice the length of the third: *disk of the chest with three indistinct short fawn-coloured stripes:* abdomen obconical, a little longer and broader than the chest: *legs tawny; fore-thighs and feet black; posterior thighs with a black band near the tip: wings almost colourless;* veins black, tawny towards the base; lower cross-vein almost upright, with two slight curves, the lower outward, the upper inward: alulæ white: halteres yellow. Length of the body $1\frac{3}{4}$ line; of the wings $3\frac{1}{2}$ lines.

United States.

Cœnosia solita, Fœm.

Nigra, cano-tomentosa; caput antice album; thorax flavo-fusco trivittatus; pedes fulvi, femoribus tarsisque nigris; alæ sublimpidæ.

Black, *with a hoary covering: head with a white covering in front;* frontalia narrower towards the feelers: facialia without bristles; epistoma

not prominent: mouth and palpi black: feelers black, with a hoary covering; third joint linear, obliquely truncated at the tip, nearly reaching the epistoma, full twice the length of the second; sixth very slender, very minutely pubescent, about twice the length of the third: *chest with three yellowish brown stripes:* abdomen obconical, with a cinereous covering, a little longer and broader than the chest: *legs tawny; thighs black, with tawny tips; posterior thighs tawny towards the base; feet black: wings almost colourless;* veins black, tawny towards the base; lower cross-vein very slightly oblique, almost straight: alulæ white: halteres yellow. Length of the body 1½ line; of the wings 3 lines.

United States.

Cœnosia atrata, Fœm.

Nigra, cano-tomentosa; caput antice album; thorax fusco trivittatus; pedes fulvi, femoribus anticis tarsisque nigris, femoribus posterioribus nigro cinctis; alæ sublimpidæ.

Black, *with a hoary covering: head with a white covering in front;* frontalia black, broad, linear, with a hoary lanceolate stripe; facialia without bristles; epistoma not prominent: eyes bare: mouth and palpi black: feelers black; third joint linear, obliquely truncated at the tip, reaching the epistoma, more than twice the length of the second; sixth slender, pubescent, bare at the tip, stout at the base, more than twice the length of the third: *chest with three pale brown stripes:* abdomen elliptical, longer and a little broader than the chest: *legs tawny; feet and fore-thighs black; hinder thighs with a black band near the tip: wings almost colourless;* veins tawny, black towards the tips; lower cross-vein straight, almost upright: alulæ white: halteres yellow. Length of the body 1¾ line; of the wings 3 lines.

United States.

Cœnosia? intacta, Fœm.

Flava; antennæ basi fuscæ; thoracis discus niger; abdomen fulvum, apice subcinereum; pedes fulvi; alæ sublimpidæ.

Yellow: crown black, with a hoary covering; frontalia pitchy, linear, including on the back part a short lanceolate hoary stripe; facialia without

bristles; epistoma not prominent: eyes bare: mouth and palpi tawny; mouth black towards the tip: feelers yellow; first and second joints brown; third linear; rounded at the tip, not nearly reaching the epistoma, less than twice the length of the second; sixth black, slender, very minutely pubescent, stout at the base, nearly thrice the length of the third: disk of the chest black, with a hoary covering: abdomen tawny, obconical, with a cinereous tinge towards the tip, longer than the chest: legs tawny; feet darker than the shanks: wings almost colourless; veins black, tawny towards the base; lower cross-vein straight, almost upright: halteres yellow. Length of the body $1\frac{3}{4}$ line; of the wings $3\frac{1}{2}$ lines.

United States.

Genus DRYOMYZA, *Meigen.*

Dryomyza bicolor, Fœm.

Ferruginea; caput testaceum, nigro varium; thoracis discus subviridescens; abdomen viride; femora antica picea; alæ fulvæ, margine postico subcinereo.

Ferruginous: head and chest beset with a few black bristles: head testaceous; front slightly concave, forming in front a ridge with an interrupted black band; face indistinctly keeled, with a black spot on each side; sides of the epistoma and of the peristoma very prominent; epistoma with a black spot on each side: eyes bare: mouth pitchy; palpi tawny: feelers tawny; third joint slightly tapering, black towards the tip, extending beyond the epistoma, full thrice the length of the first and the second; sixth black, pubescent, twice the length of the third: disk of the chest slightly tinged with green: abdomen green, obconical, as long as the chest: forethighs pitchy, beset with a row of long black bristles; feet yellow towards the base: wings tawny, pale gray towards the hind border; veins tawny; lower cross-vein oblique, almost straight. Length of the body 3 lines; of the wings 6 lines.

New South Wales.

Genus SAPROMYZA, *Meigen.*

Sapromyza tincta, Mas.

Testacea; caput flavum; abdomen ovatum, thorace multo brevius; alæ sublimpidæ, ad costam subfulvæ.

Testaceous, clothed with black hairs and bristles: head pale yellow: mouth and palpi black: feelers tawny? abdomen oval, much shorter than the chest: feet darker than the shanks: wings almost colourless, with a slight tawny tinge along the fore border: veins tawny, darker towards the tips; middle cross-vein clouded with brown; lower cross-vein almost straight, slightly oblique: halteres yellow. Length of the body 2½ lines; of the wings 6 lines.

South Australia.

Sapromyza metallica.

Viridis; caput fulvum; pedes fulvi, antici picei; alæ fulvæ.

Metallic-green: head tawny; epistoma ferruginous: mouth pitchy; palpi tawny: third joint of the feelers oval, more than twice the length of the second; sixth black, pubescent, more than twice the length of the third; chest with a slight hoary covering: abdomen oval, not longer than the chest; tip cross-vein straight, slightly oblique. Length of the body 2½ lines; of the body 5⅓ lines.

New South Wales.

Sapromyza lateralis, Fœm.

Fulva; caput et pectus flava; facies alba; scutellum piceum; abdomen picco maculatum; alæ subcinereæ.

Tawny, beset with black bristles: *head yellow, face white:* third joint of the feelers conical, more than twice the length of the second; sixth joint black, feathered, more than twice the length of the third: *scutcheon pitchy:* breast yellow: *abdomen* obconical, not longer than the chest; *segments with pitchy spots on each side: wings slightly gray;* veins tawny:

lower cross-vein upright, very slightly bent inward: halteres yellow. Length of the body 2 lines; of the wings 5 lines.

Brazil.

Sapromyza Brasiliensis, Mas.

Fulva; facies albo vittata; tarsi picei; alæ sublimpidæ, costa venisque transversis fusco marginatis.

Tawny, clothed with black hairs and bristles: crown flat; *face with an oblique white stripe on each side;* third joint of the feelers conical, more than twice the length of the second; sixth black, feathered, more than twice the length of the third: abdomen oval, not longer than the chest: *feet pitchy: wings almost colourless, slightly tawny along the veins, brown along the fore border to the tip of the fifth longitudinal vein, and on the cross-veins;* veins black, tawny towards the base; first and second veins short; seventh about half the length of the eighth, which does not reach the border; lower cross-vein straight, slightly oblique. Length of the body $2\frac{1}{2}$ lines; of the wings 5 lines.

Brazil.

Genus ORTALIS, *Fallen.*

Macquart has divided Ortalis into the following genera—Epidesma, Coilometopia, Euprosopia, Heterogaster, Cruphiocera, Notacanthina, Lamprogaster (Chromatomyia, *Cat. Dipt. Brit. Mus.*, where it is erroneously placed with Duomyia, Zona and Trigonosoma, between Gonia and Idia), Plagiocephala, Oxycephala, Amethysa, Ortalis, Ceroxys, Herina, Senopterina (=Myrmecomyia and Polystodes, *Desv.*), Ropalomera, Richardia, Cleitamia, Eniconeura, Eurypalpus, Camptoneura, Platystoma, and Loxoneura.

Ortalis conspersa, Fœm.

Fulva; caput et thorax flavo vittata, hujus discus piceus; abdomen basi nigrum; alæ subcinereæ, maculis anticis fuscis guttisque posterioribus limpidis.

Tawny, almost linear and cylindrical: *crown* ferruginous, *with a yellow stripe on each side;* face concave, with a ferruginous stripe; epistoma

and sides of the peristoma prominent: third joint of the feelers much longer than the second; sixth black, extremely minutely pubescent, stout at the base, nearly thrice the length of the third: *disk of the chest pitchy, with two yellow stripes on each side;* breast yellow with a pitchy disk; hind-chest black: *abdomen* spindle-shaped, a little narrower but not longer than the chest, *black towards the base: wings pale gray, with some brown spots along the fore border and with many colourless dots at the tips and along the hind borders; disks almost colourless;* veins black, testaceous towards the base; middle cross-vein very slightly bent outward; cross-vein between the sixth and seventh veins angular, much bent inward; lower cross-vein almost upright, with two slight curves, the lower inward, the upper outward: halteres tawny with pale yellow knobs. Length of the body $3\frac{3}{4}$ lines; of the wings 9 lines.

Ortalis conformis, Mas.

Viridis; antennæ fulvæ, articulo 3o apice piceo; abdomen subcylindricum; tarsi fulvi; alæ subhyalinæ.

Ceroxys? *Metallic-green:* epistoma not prominent: *feelers tawny; third joint* very long, slightly tapering, reaching the epistoma, *pitchy towards the tip: abdomen almost cylindrical*, very little longer than the chest: *knees and feet tawny: wings almost colourless;* veins black: poisers pitchy. Described from an injured specimen. Length of the body $1\frac{1}{2}$ line; of the wings 3 lines.

Van Dieman's Land.

Ortalis basalis, Mas et Fœm.

Nigro-cyanea; caput fulvum; antennæ luteæ; abdomen basi ferrugineum, fœm. *apice luteum attenuatum; pedes fulvi; alæ hyalinæ, basi fulvæ, vitta antica interrupta fusca.*

Ceroxys? *Blackish blue: head tawny;* face with a whitish covering; epistoma prominent: mouth pitchy: *feelers luteous;* third joint much deeper than the second, and more than twice its length; sixth black, bare, very slender, more than twice the length of the third: *abdomen* longer

than the chest, *ferruginous towards the base, abdomen of the female pale luteous towards the tip which is much attenuated : legs tawny : wings colourless, slightly tawny at the base, adorned along the fore border with a dark brown interrupted stripe which is widened at the tip ;* veins black ; fifth vein converging towards the tip of the fourth ; sixth not reaching the hind border ; cross-veins straight, almost upright : poisers pitchy. Length of the body $1\frac{1}{2}$—2 lines ; of the wings 2—3 lines.

United States.

Ortalis angusta, Mas.

Viridis ; caput fulvum ; antennæ fulvæ, apice piceæ ; thorax purpureo vittatus, ferrugineo varius ; abdomen obclavatum, compressum, ferrugineum, viridi et purpureo varium ; pedes picei, femoribus fulvis ; alæ hyalinæ, fusco bivittatæ.

Head tawny ; crown pitchy towards the base of the feelers ; face with an oblique furrow on each side : mouth pitchy ; palpi tawny : feelers tawny ; third joint pitchy, tawny at the base, slightly tapering from the base to the tip, full four times the length of the second ; sixth black, slender, bare, nearly twice the length of the third : *chest green, with indistinct purple stripes ;* a hoary tinge on each side ; *shoulders, disk of the breast and hind-chest ferruginous : abdomen ferruginous, tinged with green and purple, obclavate, compressed,* narrower and a little longer than the chest, clothed with tawny hairs : *legs pitchy, thighs tawny ;* posterior thighs pitchy towards the tips : *wings colourless, brown along the fore border, with a colourless interval and with a brown streak proceeding from the base to the middle cross-vein,* which is very oblique ; lower cross-vein clouded with brown, oblique, curved outward towards its base ; veins black, partly tawny : alulæ whitish : halteres ferruginous. Length of the body $4\frac{1}{2}$ lines ; of the wings 8 lines.

Brazil.

Genus ROPALOMERA, *Macq.*

Ropalomera tibialis, Mas et Fœm.

Rufo-fusca ; caput testaceum, nigro varium ; antennæ ferrugineæ, apice nigræ ; thorax albo quadrivittatus ; abdomen nigrum, basi testaceum ; pedes nigri, femoribus basi fulvis, tibiis anterioribus piceis, tarsis anterioribus basi flavis ; alis cinereis, venis fusco marginatis.

Reddish brown : head testaceous above, black with a hoary covering in front, white on each side, clothed behind and beneath with tawny hairs ; *crown* with a slight longitudinal furrow, *black about the eyelets*, with a ferruginous stripe on each side ; foveæ not extending half the length to the epistoma which is not prominent ; face very convex between the foveæ and the epistoma : mouth pitchy, partly tawny ; palpi tawny, clavate : *feelers ferruginous ; third joint black above and towards the tip*, conical, full twice the length of the second ; fourth and fifth joints very short but distinct ; sixth black, slender, testaceous at the base, thinly feathered to the tip with long hairs : *chest with four white stripes :* breast with a white stripe on each side : *abdomen black*, with a hoary covering, *testaceous at the base*, not longer than the chest : legs black ; hips tawny, with a white covering ; *thighs* very thick, *tawny at the base ;* knees yellow ; *shanks* curved, *pitchy ;* hind-shanks deep black, widened ; *anterior feet yellow towards the base : wings gray, clouded with brown along the veins ;* veins black, ferruginous at the base : alulæ white : halteres tawny. Length of the body $4\frac{1}{2}$—$5\frac{1}{2}$ lines ; of the wings 11—13 lines.

Ropalomera varipes, Mas.

Rufa ; caput flavum ; antennæ luteæ ; thorax piceo trivittatus ; abdomen nigrum ; pedes fulvi, femorum vittis tibiisque posterioribus ferrugineis ; alæ cinereæ, margine antico fusco-nebuloso basi fulvo.

Deep red : head yellow, clothed behind and beneath with yellow hairs ; crown luteous, ferruginous about the hind border, with a slight longitudinal furrow ; face with a slight protuberance between the foveæ and the epistoma : mouth tawny, partly pitchy : palpi yellow, clavate : *feelers luteous ;* sixth joint black, yellow towards the base : *chest with three pitchy*

stripes: abdomen black, linear, narrower but not longer than the chest: *legs tawny;* hips ferruginous; *thighs* thick, *with ferruginous stripes;* hind-thighs with yellow reflections; shanks curved; *posterior shanks ferruginous;* hind-shanks rather broad; *feet yellow* with pitchy tips: *wings dark gray, partly clouded with brown along the fore border; fore border tawny towards the base;* veins black, tawny at the base: halteres luteous. Length of the body 4 lines; of the wings 8 lines.

Columbia.

Genus SEPSIS, *Fallen.*

In the European species of *Sepsis* and of *Nemopoda*, the antennæ do not extend to the epistoma, but they reach it in the following species and also in the genera *Michogaster* and *Omalocephala.*

Sepsis terminalis.

Testacea; antennæ apice piceæ; abdomen nigrum, apice attenuatum; femora spinosa; tibiæ posticæ fuscæ; alæ limpidæ, apicibus fuscis, venis transversis fusco marginatis.

Testaceous, slender: head almost as broad as the chest: two eyelets close together on the crown, surrounded with black; third much in advance, also surrounded with black: *third joint of the feelers pitchy above towards the tip* which is rounded, more than twice the length of the second, extending to the epistoma; sixth joint black, very slender, thinly feathered with short hairs, testaceous at the base: *hind-chest pitchy: abdomen black*, petiolated, *tapering and attenuated towards the tip:* legs testaceous; *thighs armed beneath with spines;* feet towards the tips and *hind-shanks brown: wings colourless with brown tips;* veins tawny; *middle cross-vein and those towards the base clouded with brown:* halteres pale yellow. Length of the body $4\frac{1}{2}$ lines; of the wings 6 lines.

Brazil.

Sepsis distincta, Mas.

Ænea; caput, antennæ, tarsi, femora postica basi et tibiæ anticæ fulva; alæ limpidæ, basi costaque nigræ, apice subnebulosæ.

Brassy: head tawny; crown metallic green: mouth tawny: *feelers tawny;* third joint almost elliptical, extending to the epistoma; sixth

black, bare, very slender: *hips, knees, feet, hind-thighs at the base and fore-shanks tawny: wings colourless, black at the base along the fore borders, indistinctly clouded at the tips; fore border black towards the tip;* veins tawny; fourth and fifth veins slightly converging; lower cross-vein slightly bent inward: poisers yellow. Length of the body 2 lines; of the wings $3\frac{1}{2}$ lines.

Brazil.

Genus LAUXANIA, *Latr.*

Lauxania polita, Fœm.

Cyanea; antennæ fulvæ, articulo 3o supra piceo; abdomen lateribus viridibus, apice attenuato; pedes picei, tarsis flavis; alæ subcinereæ, ad costam subflavescentes.

Dark blue, shining: epistoma not prominent: mouth black: *feelers tawny; third joint* almost spindle-shaped, *somewhat pitchy above*, full thrice the length of the second; sixth bare, black, slender, much longer than the third: *abdomen tinged with green along each side, attenuated at the tip*, a little longer than the chest: *legs pitchy; feet yellow: wings very pale gray, slightly yellow along the fore border;* veins pitchy, yellow along the fore border: poisers yellow, with pitchy knobs. Length of the body $1\frac{1}{2}$ line; of the wings 3 lines.

Brazil.

Lauxania indistincta, Fœm.

Nigro-cyanea; antennæ nigræ; pedes picei, tarsis basi fulvis; alæ limpidæ, basi et ad costam fulvæ.

Bluish black: feelers black; third joint linear, slightly rounded at the tip, reaching a little beyond the epistoma, full thrice the length of the second; sixth downy, much longer than the third: abdomen almost oval, a little shorter and broader than the chest: *legs pitchy; feet tawny towards the base: wings colourless, tawny towards the base and along the fore border;* lower cross-vein almost upright, very slightly bent inward: poisers black, tawny towards the base. Length of the body 2 lines; of the wings 5 lines.

Brazil.

Genus LONCHÆA, *Fallen.*

Lonchæa indistincta, Fœm.

Cyanea; caput atrum; pedes nigri, tarsis fulvis; alæ limpidæ.

Deep blue: head deep black; face shining: mouth pitchy: *feelers black: legs black; feet tawny: wings colourless;* veins pitchy, tawny towards the base and along the fore border: halteres tawny. Length of the body 2 lines; of the wings $4\frac{1}{2}$ lines.

Brazil.

Lonchæa Brasiliensis, Mas.

Piceo-nigra; antennæ, tibiæ tarsique posteriora et alæ fulva.

Pitchy black, shining: epistoma not prominent: mouth black: *feelers tawny;* third joint almost conical, not nearly reaching the epistoma, about twice the length of the second; sixth black, feathered with long hairs, much more than twice the length of the third; abdomen almost elliptical, a little longer than the chest: *knees, posterior shanks and posterior feet tawny; tips of posterior shanks pitchy: wings tawny:* poisers yellow. Length of the body $1\frac{3}{4}$ line; of the wings $3\frac{1}{2}$ lines.

Brazil.

Genus TRYPETA, *Meigen.*

Trypeta antiqua, Fœm.

Cinerea; caput testaceum; abdomen apice nigrum, attenuatum; pedes fulvi; alæ albidæ, stigmate flavo maculisque transversis subfuscis.

Ensina, *Desv. Cinereous,* clothed with short pale yellow hairs: *head testaceous,* whitish beneath, behind and along the borders of the eyes: mouth and *feelers pale testaceous;* third joint of the feelers oblong, longer than the second, truncate and slightly retuse at the tip; sixth joint black, bare, very slender, tawny towards the base: *abdomen attenuated, black and shining towards the tip: legs pale tawny: wings white, with a pale yellow brand at the tip of the first longitudinal vein, and with some indistinct very*

pale brown transverse marks beneath the fore border near the tip; veins pitchy, pale yellow towards the base; lower cross-vein almost upright, very slightly curved outward: alulæ white: halteres tawny. Length of the body $2\frac{3}{4}$—3 lines; of the body 5—$5\frac{1}{2}$ lines.

East Indies.

TRYPETA DUBIA, Fœm.

Nigro-fusca; caput argenteo-flavum; antennæ fulvæ; thorax cinereo bivittatus; scutellum apice ferrugineum; abdomen cinereo trivittatum, terebra fulva apice nigra; pedes fulvi; alæ cinereo-fuscæ, nebulosæ, albo guttatæ et fasciatæ.

Ensina? *Desv. Very deep brown:* thinly clothed with short whitish hairs: head and chest beset with a few long black bristles: *head yellow, a little longer than broad, silvery white along each side and in front and beneath; crown with two luteous stripes;* epistoma prominent: *mouth yellow, like that of* ENSINA; palpi white with testaceous tips: *feelers tawny;* third joint conical, longer than the second; bristle black, bare, slender, rather short, tawny at the base: *chest with two broad gray stripes; scutcheon ferruginous at the tip: abdomen* obconical, very little longer than the chest, *with three gray stripes, tawny on each side at the base; oviduct broad, flat, truncate-obconical, tawny, with a black tip; under side and legs tawny: wings grayish brown, clouded with darker brown, adorned with many white dots; an interruptedly white stripe along half the length of the hind border from the base, and a more interrupted white band near the tip,* these are formed by confluent spots: veins black; lower cross-vein very slightly oblique, curved outward in the middle: alulæ gray with tawny borders: halteres yellow. Length of the body 2 lines; of the wings $4\frac{1}{2}$ lines.

Cape.

TRYPETA CONFERTA, Fœm.

Nigra; caput ferrugineum; thorax testaceo-tomentosus, scutello luteo; abdomen apicem versus compressum attenuatum; pedes fulvi, femoribus nigris; alæ albidæ, vittis duabus anticis e maculis transversis fuscis.

Terellia? *Desv. Black: head pale ferruginous, tawny in front:* mouth ferruginous: *feelers ferruginous;* third joint short-conical, broader and

longer than the second; sixth black, stout: *chest with a testaceous covering; scutcheon luteous: abdomen* a little more than twice the length of the chest, *more than half its length to the tip compressed, shining and much attenuated; legs tawny; thighs black*, tawny towards the tips: *wings whitish; two rows of transverse indistinct very pale brown spots along the fore border;* veins pitchy, tawny towards the base: halteres tawny. Length of the body 4 lines; of the wings 6 lines.

Columbia.

Trypeta cylindrica, Mas.

Nigra, cylindrica: caput flavum; antennæ luteæ, basi nigræ; scutellum flavum; abdomen subtus fulvum; pedes flavi; alæ limpidæ, apice fuscæ.

Black, cylindrical, covered with pale down: head yellow; crown luteous; a black spot on the face, and three black dots near the epistoma which is not prominent: mouth tawny: *feelers luteous, black above at the base;* third joint almost conical, much longer than the second, not nearly reaching the epistoma; sixth black, bare, slender: *a short tawny streak on each shoulder; scutcheon yellow: abdomen spindle-shaped*, longer and narrower than the chest, *tawny beneath: legs yellow: wings* narrow, *colourless, with brown tips;* veins black, tawny towards the base; cross-veins almost straight and upright: poisers yellow. Length of the body $2\frac{1}{4}$ lines; of the wings $3\frac{1}{2}$ lines.

East Indies.

Trypeta basalis, Mas.

Fusca, cinereo-tomentosa; abdomen basi fulvum; pedes testacei; alæ fuscæ, basi maculis angulatis anticis guttisque posterioribus albis.

Brown, with a cinereous covering: abdomen tawny towards the base, not longer than the chest: *legs testaceous: wings dark brown, white at the base, and with angular white spots along the fore border and at the tips; a few white dots along the hind border and on the disk;* veins black, yellow at the base; cross-veins straight, upright: poisers yellow. Length of the body $1\frac{1}{2}$ line; of the wings $3\frac{1}{2}$ lines.

Brazil.

TRYPETA DIVISA, Fœm.

Testacea; scutelli discus niger; abdomen vitta dorsali apice maculisque nonnullis lateralibus nigris; pedes flavi, femoribus basi piceis apice subtus spinosis; alæ hyalinæ, fasciis duabus maculaque apicali fuscis.

Testaceous, shining: head pitchy about the eyelets: epistoma prominent: mouth pale ferruginous: third joint of the feelers long-conical, more than thrice the length of the second joint; sixth black, long very slender, thinly pubescent: chest clothed with short black hairs; *a black spot on the scutcheon: abdomen with a short black stripe and on each side some black spots*, not longer than broad, excepting the tube-like tip which is flattened, lanceolate, and black; *hind borders of the segments pale testaceous: legs yellow; thighs at the base* and hips *pitchy; thighs armed beneath at the tips with black spines;* feet pitchy towards the tips: *wings colourless*, apparently very minutely squamose; *a dark brown spot extending from the base to the basal cross-veins which are inclosed in a dark brown band; a dark brown band extending from the fore border to the middle cross-vein, and a spot on the tip of the wing;* veins black, lower cross-vein straight, very slightly oblique: alulæ tawny, thickly fringed: halteres yellowish white. Length of the body 3—3¼ lines; of the wings 7—7½ lines.

Var. β. Abdomen with a row of dorsal spots instead of the stripe; apical tube testaceous, with a broad black band.

Brazil.

TRYPETA PARALLELA.

Testacea; caput et pectus flava; thorax fusiformis, ferrugineo trivittatus; abdomen cylindricum; pedes flavi; alæ subfulvæ, stigmate luteo maculaque apicali fusca.

Testaceous, slender, shining: head yellow in front and beneath: mouth ferruginous: palpi yellow: *feelers yellow;* third joint conical, much longer than the second; sixth black, bare, slender, yellow at the base: *chest spindle-shaped, with three ferruginous stripes: breast yellow: abdomen cylindrical*, almost linear, narrower and a little longer than the chest: *legs yellow: wings pale tawny, with a luteous brand on the middle of the fore border, and with a little brown spot at the tip;* veins pitchy, tawny

towards the base and along the fore border; lower cross-vein slightly oblique, hardly curved inward, clouded with pale brown: halteres yellow. Length of the body $4\frac{1}{2}$ lines; of the wings 9 lines.

Cape.

TRYPETA FLEXUOSA, Mas.

Flava; antennæ luteæ; scutellum piceo trimaculatum; abdomen piceo trifasciatum; alæ limpidæ, maculis anticis fasciaque interrupta fuscis, vena pobrachiali contorta.

Yellow: face broad, whitish; epistoma slightly prominent: mouth and palpi tawny: *feelers luteous;* third joint conical, nearly twice the length of the second; sixth black, feathered with short hairs, yellow at the base: *scutcheon with three pitchy spots on the hind border*, the side pair small: hind chest whitish: *abdomen* a little shorter than the chest, not longer than broad, *with three pitchy bands, first and second bands interrupted:* legs yellow: *wings colourless, with a few small irregular pale brown spots along the fore border, and with a slender interrupted band;* veins black, yellow at the base; lower cross-vein clouded with pale brown, almost upright, hardly inclined inward; *pobrachial vein much contorted:* alulæ white: halteres pale yellow. Length of the body 2 lines; of the wings $4\frac{1}{2}$ lines.

Cape Coast.

TRYPETA VARIA.

Ferrugineo-rufa; thorax nigro bivittatus; abdomen nigrum; alæ limpidæ, maculis quatuor transversis basalibus fasciisque duabus albo guttatis fuscis.

Ferruginous red: chest with two broad black stripes: abdomen black, shining: *wings colourless, with four small transverse dark brown spots near the base, and with two very broad dark brown bands, which are united in the disk, and are parted by a triangular space beneath the fore border; the first incloses two colourless dots towards the base of the wing and a small transverse elliptical spot in the disk, it extends from the fore border to a little beyond the middle of the wing*, and there emits two branches, the first is short and subquadrate, the second is conical and nearly reaches the hind border; the second band occupies the tip of the wing, incloses an oblique colourless

spot, and is shortened behind towards the first where it emits a slender branch to the hind border; a lurid transverse streak on the union of the bands; veins black, bordered with dark brown at the base; lower cross-vein oblique, rather long: halteres pale yellow. Length of the body $3\frac{1}{2}$ lines; of the wings 7 lines.

S. America.

TRYPETA ALBOVARIA.

Nigra; caput testaceum; antennæ fulvæ; thorax cano trivittatus; abdomen fusiforme, purpureum; pedes albidi, nigro varii, tarsis testaceis; alæ nigro-fuscæ, vitta fasciisque limpidis.

Urophora? *Desv. Dull black: head testaceous*, whitish beneath and along the sides of the eyes; crown black with a testaceous disk; *face yellow, with a pitchy spot on each side;* epistoma rather prominent: mouth tawny, partly whitish; palpi whitish: *feelers tawny;* third joint conical, much longer than the second; sixth feathered to the tip with rather long hairs: *chest with three hoary stripes: breast with an oblique white stripe on each side extending from the wing to the middle hip; a white spot on each side by the fore-hip: abdomen purple, spindle-shaped*, much narrower but hardly longer than the chest; *fore-legs black, with white hips; posterior thighs white with black tips;* shanks dingy white with black tips; *feet testaceous* with black tips: *wings blackish brown*, interruptedly colourless along the hind border from the base to a little beyond the middle; a colourless stripe extending from the base along the disk to the middle, where it is united to two slightly oblique bands between it and the fore border; two slightly oblique bands across the wing nearer the tip; veins black; lower cross-vein upright, very slightly waved. Length of the body $4\frac{1}{2}$ lines; of the wings 11 lines.

Senegal?

TRYPETA ARCUATA.

Atra, gracilis; caput argenteo varium; abdomen depressum, attenuatum; alæ nigro-fuscæ, antice subconvexæ, vitta limpida fasciisque duabus albis, venis undulatis.

Urophora? *Desv. Deep black, slender: head silvery-white about the peristoma and on the face at the base of the feelers;* epistoma not prominent:

mouth pitchy: feelers black; third joint slightly tapering from the base to the tip, more than twice the length of the second, nearly reaching the epistoma: *abdomen flat, tapering towards the tip, narrower than the chest and nearly twice its length:* knees ferruginous: *wings blackish brown, slightly convex along the fore border, with a broad colourless stripe from near the base to the middle and with two white oblique curved bands across the middle; a lurid spot on the middle cross-vein; longitudinal veins undulating;* middle cross-vein slightly oblique; lower cross-vein very undulating: halteres pale yellow. Length of the body 4 lines; of the wings 7 lines.

United States.

Trypeta scutellata.

Fusca; caput testaceum; scutellum album; pectus albo trivittatum; abdomen basi ferrugineum; pedes fulvi; alæ fuscæ, maculis duabus anticis fasciaque postica maculam includente albis.

Urophora? *Dark brown: head testaceous,* whitish in front and beneath; epistoma slightly prominent: mouth and palpi tawny: third joint of the feelers long-conical, more than twice the length of the second; sixth black, feathered to the tip with short hairs, tawny at the base: *scutcheon white: breast pale brown with a white stripe on each side: abdomen* a little longer than broad, *ferruginous towards the base,* not longer than the chest: *legs tawny: wings dark brown, with two angular white spots on the fore border before the middle of the wing, and with an angular white band which rests on the hind border and incloses an angular spot; veins* black, slightly *undulating;* lower cross-vein long, oblique, very slightly undulating: alulæ white: halteres pale yellow. Length of the body $2\frac{1}{2}$ lines; of the wings 6 lines.

Senegal?

Trypeta albida, Fœm.

Nigra, cinereo-tomentosa; caput et scutellum flava; abdomen apicem versus luteum; pedes testacei; alæ albæ, fusco fasciatæ.

Acinia, *Desv. Black, with a cinereous covering: head whitish yellow;* crown testaceous: mouth tawny; *feelers yellow,* short; sixth joint black, slender, bare: *scutcheon yellow: abdomen* obconical, hardly longer than

the chest, *luteous towards the tip which is black: legs testaceous: wings white, with several imperfect and interrupted brown bands; one near the tip entire and including some white dots; a black and yellow dot on the fore border before the middle;* veins yellow, partly black; cross-veins almost straight and upright: poisers yellow. Length of the body 1½ line; of the wings 3 lines.

South Australia.

Trypeta mixta.

Testaceo-tomentosa; caput subtus flavum; antennæ flavæ; abdomen nigrum, apice ferrugineum; pedes fulvi; alæ fuscæ, albo confertim guttatæ, costa alba fusco maculata.

Acinia, *Desv.* Black with a pale testaceous covering: head pale yellow beneath: feelers yellow: abdomen mostly black; hind borders of the segments tawny; last segment ferruginous, shining, obconical, flat, black at the base and at the tip: *legs tawny: wings dark brown*, adorned with numerous white dots of various size, these are largest and most numerous along the hind border where the brown is pale; fore border white for three-fourths of the length, with pale brown transverse spots at regular intervals; veins black, tawny at the base; lower cross-vein upright, almost straight: halteres tawny. Length of the body 3¼ lines; of the wings 6½ lines.

East Indies.

Trypeta contraria, Mas.

Fulva; thoracis discus pallide ferrugineus; abdomen sublineare apice ferrugineum fulvo vittatum; pedes fulvi; alæ fuscæ, vitta fasciis duabus striga maculaque hyalinis.

Acinia, *Desv.* Tawny: head very pale: disk of the chest pale ferruginous, almost linear: abdomen towards the tip ferruginous with a tawny stripe: *legs tawny: wings brown*, with some colourless marks, these are; a short stripe along the fore border from the base; two bands tapering from the fore border to the disk, the second little more than half the length of the first; an oblique streak near the base of the hind border which is very slightly gray, and a small spot on the hind border between the fourth and

fifth veins; veins black, tawny at the base; lower cross-vein upright, almost straight. Length of the body $2\frac{3}{4}$ lines; of the wings $6\frac{1}{2}$ lines.

East Indies.

Trypeta quadrigutta.

Fusca; caput flavum; antennæ ferrugineæ; pedes picei, tarsis fulvis; alæ nigro-fuscæ, maculis guttisque albis fasciaque apicali limpida.

Acinia, *Desv.* *Dark brown*, thinly clothed with short white hairs: *head yellow* with a whitish covering, beset behind with some white spines; front ferruginous; epistoma not prominent: *feelers ferruginous;* third joint conical, longer than the second; sixth black, bare, very slender, tawny at the base: chest with a few long black hairs: abdomen wanting: *leg pitchy;* trochanters, feet and tips of shanks tawny: *wings blackish brown*, with four or five angular white spots along the fore border between the base and the middle, and with a slender colourless band on the tip and on the adjoining part of the fore border; three white dots near the base, four on the disk, and two oblique streaks on the hind border; veins black, pale yellow in the white parts; first and second much curved; transverse veins slightly oblique, lower one somewhat waved: halteres pale yellow. Length of the body $2\frac{1}{2}$? lines; of the wings 5 lines.

South America.

Trypeta pantherina.

Cervina; caput fulvum; thoraæ et abdomen confertim guttata et maculata; scutellum apice et abdomen basi fulva; pedes fulvi; tarsis posticis albis; alæ fuscæ, nigro-fusco maculatæ et guttatæ, guttis nonnullis margineque postico limpidis.

Acinia, *Desv.* Fawn colour: head tawny, white in front and beneath: mouth pitchy; palpi tawny: feelers tawny; third joint a little longer than broad, much longer and broader than the second; sixth long, slender, bare, black, tawny at the base, springing from the base of the third joint: chest and abdomen adorned with very numerous spots and dots, many of which are confluent; tip of the scutcheon and base of the abdomen tawny: legs tawny; hind-feet white, with black tips: wings brown, colourless along

most of the hind border and with two colourless dots on the fore border, adorned with numerous dark brown spots and dots; three of the spots near the tip with white dots in the centre; a tawny stripe on the disk; veins black; fifth longitudinal vein slightly undulating near the tip; lower cross-vein very oblique, slightly curved outward: halteres tawny, Length of the body 2 lines; of the wings 5 lines.

Brazil.

Trypeta excepta.

Ferruginea; abdomen testaceum, segmentis picco trimaculatis; pedes testacei; alæ nigro-fuscæ margine postico guttisque tribus apicalibus limpidis.

Acinia, *Desv.* Ferruginous: head paler, tawny in front; epistoma slightly prominent: mouth and feelers tawny; third joint of the feelers conical, much longer than the first and the second; sixth black, bare, very slender, tawny at the base: breast pale ferruginous: abdomen testaceous, with three pitchy spots on each segment: legs testaceous: wings dark brown, colourless along part of the hind border and with three almost colourless dots near the tip; first dot between the second and third longitudinal veins; second and third dots between the third and fourth veins: cross-veins clouded with black; middle cross-vein just beyond one-third of the length; lower cross-vein at about half the length, oblique: halteres pale tawny. Length of the body $1\frac{3}{4}$ line; of the wings 4 lines.

Brazil.

Trypeta ferruginea, Fœm.

Ferruginea; caput flavum, ferrugineo varium, productum; antennæ luteæ, basi testaceæ; thorax vittis tribus pallidis; abdomen gracile, lineare, apice testaceum cylindricum; pedes fulvi; alæ subcinereæ basi et ad costam fulvæ, maculis guttisque fasciaque limpidis.

Acinia, *Desv.* Ferruginous: head pale yellow, with a ferruginous conical protuberance in front on which the feelers are seated; a ferruginous stripe on each side behind the eyes, and a ferruginous spot on the crown; front long; epistoma not prominent, with a blackish border: mouth and palpi tawny: feelers testaceous; third joint luteous, conical, very little longer than the second: sixth pitchy, long, slender, minutely pubes-

cent, yellow towards the base: chest with three pale stripes; hind-chest and breast tawny: abdomen slender, linear, half the breadth of the chest and much more than twice its length; terminal tube testaceous, cylindrical, slightly curved downward, widening towards the tip, ferruginous towards the base and at the tip: legs tawny: wings pale gray, tawny at the base and along the fore border, adorned with many colourless spots and dots and beyond the middle with a short, broad, partly interrupted colourless band; veins pitchy, tawny towards the base; lower cross-vein oblique, very slightly undulating: halteres pale yellow with luteous knobs. Length of the body 7 lines; of the wings 12 lines.

East Indies.

Trypeta læta.

Nigra; caput flavum, albo nigroque varium; antennæ flavæ, apice piceæ; thorax albo quinquevittatus; abdomen purpureo-cyaneum, basi flavum; tibiæ intermediæ tarsique flava; alæ sublimpidæ, fusco fasciatæ et vittatæ.

A new group of *Trypeta*, allied to *Odontomera*. *Black, head yellow*, clothed beneath with white hairs, adorned with a band of white along the fore part of the eyes and across the hind side of the head; front ferruginous, with a yellow disk; *face black, triangular:* mouth tawny, partly pitchy; palpi yellow: *feelers yellow;* third joint pitchy above and at the tip, more than twice the length of the second; sixth black, very slender, thinly feathered with rather long hairs: *chest with five white stripes*, the inner pair very indistinct: hind-chest with a white spot on each side: breast with two oblique stripes on each side, one white, the other ferruginous: abdomen linear, blue, partly purple, pale yellow at the base, narrow and a little longer than the chest: *legs yellow;* thighs black, with yellow tips; hind-thighs yellow, stout, armed beneath with black spines, adorned with a broad black band; fore-shanks and hind-shanks pitchy: wings almost colourless, brown for a short space from the base along the fore border, with a broad, brown band beyond the middle and with brown tips; veins black; third vein slightly undulating towards the tip; middle cross-vein straight, upright, parted by more than its length from the lower cross-vein which is slightly oblique: halteres pale yellow, luteous at the base and at the tips. Length of the body 3 lines; of the wings 7 lines.

Var. β. Fore-shanks with yellow tips; hind-shanks ferruginous.

Brazil.

Genus CALOBATA, *Fabr.*

Calobata compressa, Mas et Fœm.

Ferruginea; caput piceo bivittatum, antice argenteum; thorax nigro vittatus; abdomen nigrum; pedes picei, femoribus fulvis; alæ cinereæ, basi fasciisque tribus albis.

Ferruginous: head silvery white in front; crown with a tawny longitudinal furrow and *with a pitchy stripe on each side:* mouth pitchy; palpi tawny: *chest with a black stripe* which is tinged with gray: *abdomen black*, slender, long, compressed: *legs pitchy*, long, slender; *thighs tawny*, posterior thighs with pitchy tips: *wings gray*, whitish at the base and adorned with three white bands; first band semicircular; second and third almost straight; third much more slender than the second; veins black: halteres ferruginous with pitchy knobs. Length of the body 7 lines; of the wings 10 lines.

Calobata brevipennis, Mas.

Nigra, obscura, sat brevis; caput latitudine vix longius, thorace paullo latius, lateribus ferrugineis; antennæ ferrugineæ; abdomen clavatum; pedes fulvi, antici nigri, femora posteriora clavata, tarsi posteriores ferruginei, basi testacei; alæ breves, sublimpidæ, fasciis tribus fuscis.

Dull black, rather short: head hardly longer than broad, a little broader than the chest, ferruginous on each side above the feelers: mouth and palpi tawny: *feelers ferruginous;* third joint pitchy above towards the tip, long-conical, longer than the first and the second; sixth thinly feathered with long hairs: breast shining: *abdomen clavate*, narrower than the chest and nearly twice its length: legs tawny; fore-legs black; *hinder thighs* partly pitchy, *clavate*, slender towards their tips; hinder feet ferruginous, pale testaceous at the base: wings short, almost colourless, with two broad brown bands, and with a very slender interrupted brown band near the tip; first band near the base; second beyond the middle; little cross-vein between them clouded with dark brown; veins black: halteres ferruginous, with black knobs. Length of the body 3½ lines; of the wings 5 lines.

Brazil.

Calobata terminalis, Mas.

Ferruginea, gracilis; caput latitudine vix longius, antice argenteum; thorax bivittatus; abdomen clavatum, apice nigrum; pedes ferruginei, piceo varii; alæ fuscæ, fasciis tribus albis.

Pale ferruginous, slender: head hardly longer than broad, silvery white in front; crown with a longitudinal furrow and with a pitchy stripe on each side; epistoma and mouth mostly pitchy: chest with a darker stripe on the fore part; hind-chest dark ferruginous with a hoary covering: abdomen clavate, much longer and narrower than the chest, black towards the tip: legs long, slender; fore-feet and posterior shanks and feet pitchy; middle thighs with a broad pitchy band: wings pale brown, with three white bands; the first curved inward, a little before the middle; the third near the tip, more slender than the second; veins black, tawny towards the base. Length of the body 3 lines; of the wings 5 lines.

Calobata valida, Mas.

Nigra: caput ferrugineum; metathorax et pectus cyanea; abdomen clavatum; pedes fulvi, femoribus posterioribus apice testaceis, tarsis piceis, tibiis anticis nigris, tarsis anticis albis basi nigris; alæ fuscæ, basi limpidæ, fasciis duabus albidis.

Black: head ferruginous, a little broader than the chest, not longer than broad; *crown bluish black*, shining; frontalia ferruginous, widening from the eyelets to the feelers: mouth pitchy: third joint of the feelers pitchy above, long-conical, longer than the first and the second: hind-chest and breast blue, the latter ferruginous in front: abdomen clavate, with a hoary tinge along the hind borders of the segments, much narrower and longer than the chest: legs tawny; hinder thighs testaceous towards the tips; shanks darker than the thighs: feet pitchy; fore-shanks black; fore-feet white, black towards the base: wings pale brown, colourless at the base, with two whitish bands, one a little before the middle, the other near the tip; veins black, tawny towards the base; fifth longitudinal vein united to the fourth, very near the tip of the wing. Length of the body 3½ lines; of the wings 7 lines.

United States.

Calobata picea, Fœm.

Ferruginea, gracillima; thorax nigro trivittatus; abdomen attenuatum apice nigrum; pedes picei, fulvo et ferrugineo varii; alæ fuscæ, albo bifasciatæ, basi et postice cinereæ.

Ferruginous, very slender: head a little longer than broad; crown with a rather deep furrow: feelers short, third joint very short-conical, not longer than the second; sixth pitchy, pubescent: chest with three black stripes: abdomen black and shining towards the tip, tapering from near the base unto the tip, much narrower than the chest and more than twice its length: *legs pitchy*, long, slender; fore-hips yellow; fore-thighs and fore-shanks ferruginous; fore-thighs towards the base and posterior hips tawny; posterior thighs with two tawny bands: wings brown, pale gray towards the base and along the hind borders, with two short white bands towards the tips; veins black, tawny at the base. Length of the body 5 lines; of the wings 9 lines.

Van Dieman's Land.

Calobata basalis.

Chalybæa; caput purpureo-cyaneum, antice argenteum; antennæ nigræ; abdomen nigro-fuscum, fasciis duabus chalybæis; pedes antici nigri, tarsis apice albis; pedes posteriores picei, femoribus fulvis piceo trifasciatis, femoribus posticis basi flavis; alæ sublimpidæ, sat breves, fusco trifasciatæ.

Chalybeous, rather slender: *head purplish blue*, shining, hardly longer than broad, *silvery white on each side in front*; frontalia deep black, widening from the eyelets to the feelers; *face ferruginous*: mouth black: feelers black; third joint conical, ferruginous at the base, longer than the first and the second; sixth pubescent, ferruginous at the base: *abdomen blackish brown*, tapering towards the tip, with two steel-blue bands near the base, much narrower than the chest and more than twice its length: legs long, slender; fore-legs black; their feet white towards the tips: hinder legs pitchy; their thighs tawny with three pitchy bands; hind-thighs yellow at the base: wings rather short, almost colourless, with three broad brown bands; first short; third at the tip; veins black, tawny at the base:

halteres yellow, with pitchy knobs. Length of the body 6 lines; of the wings 7½ lines.

East Indies.

Calobata leucomelas.

Purpureo-nigra; antennæ testaceæ, articulo 3o supra nigro; thorax cinereo bivittatus; abdomen chalybæum; pedes nigro-picei, femoribus posticis albo fasciatis basi flavis, tarsis anticis et posticis albis; alæ subcinereæ.

Purplish black, slender, head not longer than broad, testaceous above each feeler, silvery white along the eyes: mouth black; tip testaceous: feelers testaceous; third joint black above and at the tip, conical, longer than the first and the second; sixth black, pubescent: chest with two gray stripes: abdomen chalybeous, linear, about half the breadth and twice the length of the chest: legs pitchy black, long, slender; hind-thighs pale yellow at the base, and with a white band at two-thirds of the length; fore-feet and hind-feet snowy white: wings slightly grayish: veins black: halteres pale yellow, with pitchy knobs. Length of the body 6 lines; of the wings 9 lines.

South America.

Calobata varipes, Fœm.

Nigra; caput purpureo-nigrum; antennæ testaceæ, apice piceæ; thorax cinereo bivittatus; pectus cyaneum; abdomen compressum, apice attenuatum, basi subtus testaceum; femora posteriora basi fulva, postica albido fasciata; tarsi anteriores albi; alæ subfulvæ.

Black: head purplish black, testaceous on each side above the feelers, silvery white by the eyes, not longer than broad: mouth pitchy: feelers testaceous; third joint towards the tip and following joints pitchy; third conical, longer than the first and the second: chest with two gray stripes: breast blue: abdomen compressed, tapering towards the tip, testaceous beneath towards the base, nearly twice the length of the chest: legs black; hinder thighs tawny for half the length from the base: hind-thighs with a broad yellowish white band a little before three-fourths of the length;

anterior feet snowy white: wings slightly tawny; veins pitchy: halteres tawny, with black knobs. Length of the body 5 lines; of the wings 8 lines.

South America.

Calobata nigrifilum.

Atra, nitens, gracillima; caput latitudine longius; thorax fusiformis; abdomen lineare; pedes nigro-picei, gracillimi; alæ nigricantes.

Deep black, shining, very slender: head longer than broad: feelers black, tinged with gray; third joint conical, longer than the first and the second; sixth bare: chest spindle-shaped: abdomen linear, much narrower than the chest, and about twice its length: *legs pitchy black*, very long and slender: wings blackish, very iridescent; veins and halteres black. Length of the body 4½ lines; of the wings 8 lines.

South America.

Calobata tenuipes.

Ferruginea; caput longum; antennæ piceæ, basi ferrugineæ; thorax fusiformis, piceo vittatus; abdomen piceum, basi ferrugineum; pedes picei, longissimi, gracillimi, femoribus basi tibiisque anticis fulvis, femoribus posterioribus fulvo bifasciatis; alæ subcinereæ, albo quadrivittatæ.

Ferruginous, slender: head long; feelers pitchy; first and second joints ferruginous; third elliptical, longer than the first and the second; sixth pubescent: eyes black: chest spindle-shaped, with a pitchy stripe: abdomen pitchy, almost linear, somewhat ferruginous towards the base, narrower than the chest and nearly twice its length: legs very long and slender, pitchy; thighs at the base and fore-shanks tawny; posterior thighs with two tawny bands: wings pale gray, with two whitish sometimes indistinct bands in a cross line before the middle, and with two slender white bands near the tip, the second band short; veins black, tawny at the base: halteres tawny. Length of the body 4 lines; of the wings 7 lines.

Van Dieman's Land.

Calobata atra.

Atra, robusta; caput longitudine latius; antennæ piceæ; abdomen clavatum; pedes validi, tibiis posticis subarcuatis; alæ albidæ, costa fasciaque fuscis.

Deep black, stout: head broader than long, a little broader than the chest, whitish about the borders of the eyes; crown with two very slight longitudinal furrows: mouth and *feelers pitchy*; third joint of the feelers linear, rounded at the tip, about four times the length of the second; sixth pubescent: abdomen clavate, nearly twice the length of the chest: legs stout; hind-shanks slightly curved: wings whitish, dark brown along the fore border from the base unto beyond the tips, and with a dark brown very broad slightly curved band which incloses the cross-veins; veins pitchy, yellow in the colourless part towards the tip: halteres testaceous. Length of the body $5\frac{1}{2}$ lines; of the wings 10 lines.

Calobata guttata.

Ferruginea; caput latitudine multo longius, subellipticum, subtus chalybæum; antennæ nigræ; thoracis discus piceus; pectus chalybæum; abdomen chalybæum, subclavatum, basi et segmentorum marginibus posticis ferrugineis; pedes antici nigri; femora posteriora fulva; tibiæ tarsique posteriora picea, hi basi testacei; alæ fuscæ, basi fascia maculisque tribus limpidis.

Ferruginous: head broader than the chest, very much longer than broad, almost elliptical, chalybeous beneath; crown black, shining; frontalia broad, deep black, velvet-like, very slightly widening from the back part to the feelers: mouth pitchy: feelers black; third joint long-conical, longer than the first and the second; sixth thinly feathered with long hairs: disk of the chest pitchy: breast chalybeous: abdomen subclavate, chalybeous, ferruginous towards the base and along the hind borders of the segments, narrower than the chest and nearly twice its length: legs rather long and slender; fore-legs black; posterior thighs tawny; posterior shanks and feet pitchy, the latter pale testaceous towards the base: wings brown, colourless at the base, and before the middle with a colourless band which is narrowest in the disk, and with three colourless spots nearer the

tip, the middle one in advance; veins black, tawny in a spot of that colour along the fore border near the base. Length of the body $4\frac{1}{2}$ lines; of the wings 9 lines.

Brazil.

Calobata? contracta.

Nigra, obscura; caput thoracis longitudine, facie albida; antennæ piceæ; thorax robustus, subcompressus; abdomen lineare, compressum, segmentorum marginibus posticis argenteis; tarsi antici latiores; alæ limpidæ, parvæ.

Black, not shining: head as long as the chest, a little longer than broad; crown striated; face whitish; epistoma slightly prominent: mouth pitchy: feelers pitchy; third joint long-conical, much longer than the first and second; sixth bare, very slender: chest and abdomen with a slight hoary tinge: chest stout, slightly compressed: abdomen linear, compressed, much longer than the chest and about half its breadth: a silvery band along the hind border of each segment from the first to the third: legs rather long and slender; fore-feet rather broad: wings colourless, short and narrow; veins black, pitchy at the base: halteres pitchy. Length of the body 3 lines; of the wings 4 lines.

East Indies.

Calobata? bicolor, Mas et Fœm.

Nigra; caput albo-tomentosum; antennæ ferrugineæ; abdomen basi et subtus fulvum, fœminæ apice attenuatum; pedes flavi, tibiis posterioribus basi nigris, tarsis nigris basi flavis; alæ subcinereæ, antice fulvescentes, apice subfuscæ.

Black, shining: head with a shining white covering, clothed beneath with white hairs; face yellow in front; epistoma whitish: mouth yellow; palpi tawny: feelers pale ferruginous; third joint almost conical, much more than twice the length of the second: sixth black, pubescent, slender, much more than twice the length of the third: sides of the breast tinged with white: abdomen longer and narrower than the chest, tawny towards the

base, attenuated towards the tip in the female; underside mostly tawny: legs yellow; hinder shanks black towards the base; feet black, yellow at the base: wings pale gray with a slight tawny tinge along the fore border, and a slight brown hue at the tips; veins black, tawny at the base; tips of the fourth and fifth longitudinal veins approximate; cross-veins straight; lower cross-vein slightly oblique: halteres yellow. Length of the body $2\frac{1}{2}$ lines; of the wings 5—6 lines.

Brazil.

This and the following species do not fully agree with the characters of *Calobata*, and may form a new genus.

Calobata? argentata.

Nigra; caput argenteum; antennæ ferrugineæ; pectoris discus piceus, lateribus argenteis; abdomen submetallicum; pedes fulvi, femoribus anticis apice nigricantibus, tibiis posticis piceis aut nigris fulvo cinctis, tarsis nigris basi fulvis; alæ fulvescente-subcinereæ.

Black, shining: head with a silvery white covering in front and beneath, clothed with white hairs beneath; epistoma and mouth yellow; palpi ferruginous: feelers ferruginous; third joint tawny, slightly conical, full twice the length of the second; sixth black, slender, bare, nearly thrice the length of the third: disk of the breast pitchy; sides silvery white: abdomen slightly metallic, almost linear, longer and narrower than the chest: legs tawny, slender; fore-thighs blackish at the tips; hind-shanks pitchy or black, with a tawny band in the middle; feet black, tawny at the base: wings pale gray with a slight tawny tinge which does not extend to the hind border; veins black, tawny at the base; lower cross-vein straight, slightly oblique, very near the hind border: halteres very pale yellow. Length of the body $3\frac{1}{2}$—$3\frac{3}{4}$ lines; of the wings 7—$7\frac{1}{2}$ lines.

Brazil.

Genus ULIDIA, *Meigen.*

Ulidia divergens, Mas.

Cyanea; caput piceum; facie viridi; antennæ ferrugineæ, basi fulvæ; abdomen apice viridescens; pedes purpurei, tarsis flavis; alæ hyalinæ.

Dark blue: head pitchy, ferruginous along the eyes in front; face green; epistoma rather prominent: mouth black: feelers tawny; third joint ferruginous, conical, more than twice the length of the second; sixth black, slender, very minutely pubescent, tawny at the base, more than twice the length of the third: breast tinged with purple: abdomen greenish towards the tip, not longer than the chest: legs purple; feet pale yellow; tips of fore-feet black: wings colourless; veins tawny; fifth vein converging towards the fourth and almost united to it at the tip; halteres yellow. Length of the body $1\frac{3}{4}$ line; of the wings 3 lines.

East Indies.

Genus SCIOMYZA, *Fallen.*

Sciomyza squalida.

Fulva, piceo alboque vittata; antennæ nigræ; femora apice nigra; tibiæ nigro bifasciatæ; tarsi nigri, basi fulvi; alæ sublimpidæ.

Tawny: crown flat, ferruginous, with a black stripe and a white stripe on each side: feelers black; sixth joint pubescent: chest with a pitchy stripe between two whitish stripes; a short indistinct whitish stripe on each side of the hinder part; sides and breast whitish: abdomen obconical, a little shorter than the chest: thighs with black tips; shanks with two black bands; feet black, tawny towards the base: wings almost colourless; veins tawny, black towards the tips; lower cross-vein straight, slightly oblique: halteres yellow. Length of the body 3 lines; of the wings 6 lines.

Australia.

Sciomyza lineata, Fœm.

Fulva; antennæ nigræ, basi fulvæ; thorax nigro vittatus; abdominis segmenta marginibus posticis nigris; femora tibiæque apice tarsique nigra; alæ subfulvæ.

Tawny: head and chest beset with a few black bristles; crown flat; frontalia yellow, slender; face very slightly convex; a blackish spot on each side between the feeler and the eye; eyes bare: mouth pitchy; palpi tawny: feelers black; first and second joints tawny; third almost linear, rather deep, rounded at the tip, not nearly reaching the epistoma, rather more than twice the length of the first and second; sixth slender, pubescent, much more than twice the length of the third: chest with a blackish stripe: abdomen obconical, a little longer than the chest; hind borders of the segments black: fore-thighs with a row of bristles; feet and tips of the thighs and of the shanks black: wings slightly tawny; veins tawny; middle cross-vein and tip of the second longitudinal vein at an almost equal distance from the base of the wing; lower cross-vein slightly oblique, almost straight. Length of the body $2\frac{3}{4}$ lines; of the wings 6 lines.

New South Wales.

Sciomyza testacea, Fœm.

Testacea; antennæ fulvæ, articulo 3o nigro vittato; thorax nigro trivittatus; abdomen apice nigrum; alæ subfulvæ, margine postico sublimpido.

Testaceous: head and chest beset with a few black bristles; crown flat; frontalia yellow, slender; face slightly convex: eyes bare: mouth pitchy; palpi tawny: feelers tawny; third joint slightly conical, more than twice the length of the first and of the second, not nearly reaching the epistoma, with a black stripe above; fourth, fifth, and sixth, black; sixth slender, pubescent, nearly thrice the length of the third: chest with three slender black stripes: abdomen almost oval, a little broader and shorter than the chest, black towards the tip: fore-thighs beset with a row of bristles; feet pitchy towards the tips: wings slightly tawny, almost colourless along the hind border; veins tawny; middle cross-vein and tip of the second longitudinal vein at an almost equal distance from the base of the

wing; lower cross-vein oblique, with two extremely indistinct curves, the lower inward, the upper outward. Length of the body 3¼ lines; of the wings 7 lines.

New South Wales.

Sciomyza australis, Fœm.

Testacea; antennæ fulvæ, articulo 3o nigro vittato; thorax ferrugineo vittatus; abdomen apice nigricans; alæ sublimpidæ, antice subfulvæ.

Testaceous: head and chest beset with a few bristles; crown flat; face very slightly convex: eyes bare: mouth ferruginous; palpi testaceous: feelers tawny; third joint hardly conical, more than twice the length of the first and the second, not nearly reaching the epistoma, with a black stripe above; sixth black, slender, pubescent, much more than twice the length of the third; chest with a ferruginous stripe on the hind part; borders of the scutcheon ferruginous: abdomen blackish towards the tip: fore-thighs beset with a row of bristles; feet black towards the tips: wings almost colourless, slightly tawny along the fore border; veins tawny; middle cross-vein and tip of the second longitudinal vein at an almost equal distance from the base of the wing; lower cross-vein slightly oblique, slightly bent inward in the middle. Length of the body 3 lines; of the wings 7 lines.

Van Dieman's Land.

Sciomyza repleta, Fœm.

Testacea; vertex piceo guttatus; thorax nigro trivittatus; pectus nigro maculatum; abdomen nigrum, flavo bivittatum; pedes flavi, femoribus tibiisque nigro bifasciatis; alæ hyalinæ, fasciis quindecim cinereis.

Testaceous: crown with pitchy dots surrounding the bristles; epistoma slightly prominent: mouth ferruginous: third joint of the feelers long-conical, reaching the epistoma, more than twice the length of the second; sixth black, pubescent, bare towards the tip, full twice the length

of the third: chest with three black stripes; breast with some black spots; scutcheon mostly black; abdomen black, with two yellow stripes, as long as the chest: legs yellow; thighs and shanks with two black bands: wings colourless, with about fifteen gray bands, which are distinct towards the fore border, but irregular and confluent towards the hind border; veins black, pale at the base; cross-veins clouded with dark brown; lower cross-vein slightly oblique, almost straight: halteres yellow. Length of the body $1\frac{3}{4}$ line; of the wings 4 lines.

East Indies.

Sciomyza Capensis.

Fusca; caput luteum; thorax antice testaceo trivittatus, postice ferrugineus; abdomen ferrugineum; pedes fulvi, femoribus tibiisque apice tarsisque piceis; alæ fuscæ, maculis 10 *apiceque albidis.*

Brown: head luteous, testaceous behind, nearly as broad as the chest, pitchy about the eyelets, on each side of which there is a partly ferruginous partly black mark; face and peristoma whitish yellow: mouth yellow: feelers luteous; third joint long-conical, much longer than the first and the second; sixth black, feathered to the tip with moderately long hairs: chest with three pale testaceous stripes on the fore part, ferruginous with a hoary tinge on each side and behind: abdomen ferruginous, linear, narrower and not longer than the chest: legs tawny; thighs and tips of the shanks and of the feet pitchy: wings dark brown with about ten whitish dots; tip whitish; veins black: halteres whitish. Length of the body 3—$3\frac{1}{2}$ lines; of the wings 7—8 lines.

Cape.

Sciomyza antica, Fœm.

Nigra, cano-tomentosa; antennæ fulvæ, arista plumata; abdomen fulvum; pedes fulvi, antici picei; alæ subfulvæ.

Black, with a hoary covering: epistoma not prominent: mouth pitchy; palpi tawny: feelers pale tawny; third joint about twice the length of the second, rounded at the tip; sixth black, feathered, much more than twice the length of the third: abdomen tawny, obconical, not longer than the

chest: legs tawny; fore-legs pitchy: wings with a tawny tinge; veins tawny; lower cross-vein upright, almost straight: halteres tawny. Length of the body 1½ line; of the wings 3½ lines.

United States.

Sciomza parallela, Mas.

Fulva; caput flavum, albo trivittatum; antennæ ferrugineæ basi fulvæ; thorax cinereus; pedes testacei, tibiis anticis apice tarsisque anticis ferrugineis; alæ sublimpidæ.

Tawny: head yellow, with a shining white covering; crown luteous, with three white stripes; epistoma not prominent: mouth ferruginous; palpi tawny: feelers tawny; third joint ferruginous, somewhat obconical, slightly bent upward, tawny towards the base, full twice the length of the second; sixth bare, very slender, black towards the tip, more than twice the length of the third: chest cinereous: breast with a hoary covering: abdomen a little longer and narrower than the chest: legs testaceous; fore-feet and tips of fore-shanks ferruginous: wings almost colourless; veins tawny, black towards the tips; lower cross-vein almost straight and upright: halteres yellow. Length of the body 1¾ line; of the wings 4 lines.

United States.

Genus TETANOCERA, *Duméril.*

Tetanocera cornuta, Fœm.

Fulva; antennæ piceæ, arista alba; thorax fusco trivittatus, lateribus albido vittatis; pectus canum; abdomen ferrugineum; pedes fulvi, tarsis piceis; alæ subcinereæ, ad costam fulvæ.

Tawny: mouth pitchy: feelers pitchy; first joint tawny towards the base: third very long, hairy, clavate; fourth seated on the tip of the second; sixth white, slender: chest with three brown stripes; a whitish stripe on each side: breast hoary: abdomen ferruginous, tapering towards the tip, longer than the chest; legs tawny; feet pitchy; thighs armed beneath with minute spines: wings slightly gray, tawny along the fore border; veins ferruginous; fifth vein approaching very near the tip of the fourth;

middle cross-vein upright; lower cross-vein very oblique, very slightly curved outward, almost parallel to the hind border: halteres tawny, with pitchy knobs. Length of the body 4 lines; of the wings 7 lines.

Columbia.

Tetanocera australis.

Ferruginea; caput luteum, lateribus albidis; antennæ piceæ, basi fulvæ; thorax vittis tribus, scutello pectore ventreque testaceis; pedes testacei, femoribus cinereis, posterioribus flavo fasciatis, tibiis apice tarsisque piceis; alæ albæ, fusco reticulatæ.

Ferruginous: head luteous above, whitish and shining on each side of the face which is yellow; tubercle of the eyelets pitchy; peristoma rather prominent: mouth ferruginous: feelers tawny; third joint pitchy, almost conical, as long as the second; sixth downy, very much longer than the third; chest with three testaceous stripes in front, and with one along each side: scutcheon and breast testaceous: abdomen linear, a little longer and narrower than the chest, testaceous beneath: legs testaceous; thighs cinereous; posterior thighs with a yellow band in the middle; shanks with pitchy tips; feet pitchy, ferruginous at the base: wings white, thickly reticulated with brown; veins black, tawny at the base: halteres white. Length of the body 3 lines; of the wings 6 lines.

Van Dieman's Land.

Genus THECOMYIA, *Perty.*

Thecomyia longicornis, Mas et Fœm.

Perty, Delect. Anim. Artic. Brazil, var.?

Picea; caput fulvum, vertice rufo maculis duabus nigris; antennæ nigræ, basi fulvæ, apice albæ; thorax vittis tribus ventreque flavis; pedes fulvi, nigro varii; alæ cinereæ, ad costam fuscæ.

Pitchy: head tawny, much produced in front; crown bright pale red, with a black spot on each side in front; mouth long, black, tawny at the base: feelers tawny; second joint beset with black bristles; third black, tawny at the base, longer than the second, slightly tapering from near the

base to near the tip where it again widens; sixth white, feathered, yellow at the base, much longer than the third: chest with three yellow stripes; a slightly oblique yellow band on each side of the chest which is tinged with white: abdomen obconical, not longer than the chest, yellow beneath and along each side: legs tawny; thighs armed with little black spines towards the tips beneath; fore-thighs, fore-shanks and hind-shanks with a black spot towards the tips; feet darker than the shanks; fore-shanks black, yellow towards the base: wings gray, brown along the fore border; veins pitchy; lower cross-vein straight, slightly oblique; cross-veins between the fifth and sixth and between the sixth and seventh veins in one line, straight, upright, rather long: halteres yellow. Length of the body 3—3½ lines; of the wings 6—7 lines.

Amazon River.

Genus HETEROMYZA, *Fallen.*

Heteromyza robusta, Mas.

Fulva, cinereo-tomentosa; caput nigro maculatum; antennæ testaceæ, articulo 3o nigro maculato; thorax cano trivittatus, scutelli apice pectorisque maculis duabus albis; pedes flavi, femoribus tibiisque piceo bifasciatis; alæ subcinereæ, e guttis fuscis sex-vittatæ.

Tawny, with a cinereous covering: crown with a lanceolate tawny stripe; a black spot round the eyelets and one on each side; face short; epistoma prominent; peristoma broad, slightly prominent: mouth pitchy; palpi tawny: feelers testaceous; third joint with a black spot above, longer and much deeper than the second; sixth extremely slender, black towards the tip, full four times the length of the third: chest with three hoary stripes; tip of the scutcheon white: breast with a yellowish white spot on each side: abdomen obconical, a little shorter than the chest: legs yellow; thighs and shanks with two pitchy bands; fore-thighs and hind-thighs stout: wings slightly gray, with six rows of brown spots and dots; veins black, tawny at the base; lower cross-vein very oblique, very slightly bent outward near its tip: halteres yellow. Length of the body 2¼ lines; of the wings 5 lines.

Van Dieman's Land.

Heteromyza cinctipes.

Ferruginea; caput flavum; antennæ piceæ, basi fulvæ; thoracis discus piceus, cano trivittatus; abdomen nigrum, basi apiceque testaceum; femora fulva apice nigra, antica nigra albo fasciata; tibiæ nigræ, basi fascia tarsisque flavis; alæ sublimpidæ, basi costaque subfulvæ.

Ferruginous: head yellow, with a white stripe along each eye, clothed beneath with white hairs; crown luteous, with a white lanceolate stripe on the hind part, and a brown stripe on each side of the fore part; face slightly concave; epistoma and sides of the peristoma prominent; epistoma with a brown spot on each side: mouth pitchy; palpi whitish, broad, tapering towards the tips: feelers tawny; third joint pitchy, nearly round, tawny towards the base, much deeper than the second, and about twice its length; sixth bare, very slender, tawny towards the base, full thrice the length of the third: disk of the chest somewhat pitchy, with three indistinct hoary stripes: abdomen black, obconical, testaceous at the base and at the tip, shorter than the chest: thighs tawny, with black tips; fore-thighs black, with a white band; shanks black, yellow at the base and with a yellow band; feet yellow with darker tips: wings almost colourless, slightly tawny at the base and along the fore border; veins black, tawny towards the base; lower cross-vein very near the border, almost straight, very slightly oblique: halteres yellow. Length of the body 3 lines; of the wings 7 lines.

Van Dieman's Land.

Genus HELOMYZA, *Fallen.*

Helomyza rufifrons, Fœm.

Nigra, cano-tomentosa; caput luteum; antennæ pallidiores; pedes fulvi; alæ subfulvæ.

Black, with a cinereous covering: head luteous, yellow in front and beneath: mouth pitchy: feelers pale luteous; third joint short-conical, more than twice the length of the second; sixth black, bare, full thrice the length of the third: abdomen slightly obconical, a little broader but not longer than the chest: legs tawny; fore-legs darker than the posterior:

wings slightly tawny; cross-veins straight, upright: halteres pale yellow. Length of the body 2 lines; of the wings 5 lines.

Van Dieman's Land.

Helomyza pallida, Fœm.

Cinerea; caput flavum; antennæ luteæ; pedes testacei, tibiis tarsisque anticis apice nigricantibus; alæ subhyalinæ.

Pale cinereous: head yellow: mouth tawny: feelers luteous; third joint almost conical, more than twice the length of the second; sixth black, bare, more than twice the length of the third: abdomen obconical, not longer than the chest: legs pale testaceous; fore-shanks and fore-feet blackish towards the tips: wings almost colourless; veins tawny; cross-veins straight, upright: halteres pale yellow. Length of the body $1\frac{1}{2}$ line; of the wings $4\frac{1}{2}$ lines.

Van Diemau's Land.

Helomyza angusta.

Nigra; caput ferrugineum; antennæ arista plumosa; abdominis segmenta albido bimaculata; pedes fulvi; alæ fuscæ, nebulosæ.

Black: head ferruginous: feelers ferruginous; third joint linear, full twice the length of the second, black towards the tip which is rounded; sixth slender, feathered on both sides with long hairs: abdomen linear, narrower and much longer than the chest, with a whitish spot on each side of the base of every segment: legs tawny; thighs darker than the shanks: wings brown, partly clouded with darker brown; veins black, ferruginous at the base; lower cross-vein almost upright, indistinctly waved; middle cross-vein very near the base: halteres white. Length of the body $2\frac{1}{2}$ lines; of the wings 5 lines.

Brazil.

Helomyza velutina, Mas.

Nigra, holosericea; antennæ fulvæ, arista plumosa; abdomen testaceum, subtus ferrugineum; pedes ferruginei, femoribus tibiisque anticis piceis; alæ subcinereæ, ad costam subfulvæ.

Velvety black: head tinged with white beneath: feelers tawny; third

joint slightly conical, darker and much deeper than the second, and about thrice its length; sixth black, slender, tawny towards the base, feathered with long hairs, more than twice the length of the third: abdomen obconical, testaceous, ferruginous beneath, shorter and a little broader than the chest: legs ferruginous; fore-thighs and fore-shanks pitchy; fore-thighs armed beneath with long spines: wings pale gray, with a slight tawny tinge along the fore border; veins tawny; first vein brown towards the tip; lower cross-vein hardly curved inwards towards the base: halteres tawny, pitchy at the base. Length of the body 3 lines; of the wings 7 lines.

Amazon River.

Helomyza maura, Mas.

Nigra; caput fulvum; antennæ arista vix plumosa; pedes picei, genubus tarsisque fulvis, tarsis anticis piceis basi fulvis; alæ fulvæ.

Black: head tawny; epistoma pitchy, not prominent: mouth pitchy: feelers tawny; third joint almost conical, more than twice the length of the second; sixth pitchy, very slender, feathered with short hairs, nearly thrice the length of the third: abdomen obconical, very little longer than the chest: legs pitchy; knees and feet tawny; fore-feet pitchy, tawny at the base: wings tawny; cross-veins straight, upright: halteres pitchy, yellow at the base. Length of the body 2 lines; of the wings 5 lines.

East Indies.

Genus NOTIPHILA, *Fallen.*

Notiphila solita, Mas et Fœm.

Nigra, cervino-tomentosa; antennæ fulvæ; pectus canum; abdomen cinereo-cervinum, e maculis trigonis fuscis quadrivittatum; pedes fulvi, femoribus nigris, tibiis nigro fasciatis; alæ subcinereæ, venis fulvo marginatis.

Black, with a brownish fawn-colour covering: face with a slight hoary tinge: mouth tawny: feelers tawny; third joint almost conical, full twice the length of the second; sixth black, feathered with long hairs: breast hoary: abdomen cinereous fawn-colour, obconical, a little longer than the chest, with four rows of triangular brown spots: legs tawny, thighs black; shanks with very broad black bands: wings slightly gray, with a tawny

tinge along the borders of the veins; veins pitchy, tawny towards the base; lower cross-vein almost straight, slightly oblique, indistinctly clouded with brown: halteres yellow. Length of the body $1\frac{1}{2}$—$1\frac{3}{4}$ line; of the wings $3\frac{1}{2}$—4 lines.

United States.

NOTIPHILA ARGENTATA. = Brachydeutera

Fusca, tomentosa; caput argenteum; antennæ nigræ, thorax fusco quadrivittatus; pectus et abdomen subtus alba; pedes fulvi, tarsis piceis; alæ subcinereæ.

Brown, downy: head silvery white in front and beneath; epistoma prominent: feelers black; third joint oblong, much longer than the second; sixth black, feathered with long hairs: chest with four dark brown stripes, the inner pair almost contiguous: breast white: abdomen obconical, a little longer than the chest, white beneath: legs tawny; shanks darker than the thighs; feet pitchy: wings slightly gray; veins black; lower cross-vein straight, upright, parted by twice its length from the middle cross-vein: halteres tawny. Length of the body $1\frac{1}{4}$ line; of the wings 3 lines.

United States.

NOTIPHILA TRANSVERSA, Fœm.

Nigra, fusco-tomentosa; antennæ piceæ; thorax cinereo bivittatus; abdomen cinereo-tomentosum, apice attenuatum; tarsi fulvi; alæ fusco-cinereæ.

Black, with a brown covering, beset with long bristles: feelers pitchy; third joint rounded at the tip, much longer than the second; sixth black, feathered with long hairs: chest with two gray stripes: abdomen obconical, with a gray covering, a little shorter than the chest; tip attenuated and furnished with two slender appendages: legs black; knees ferruginous; feet tawny: wings gray, slightly tinged with brown; veins black, tawny at the base; middle cross-vein very near the base; lower cross-vein slightly oblique, a little bent inward, hardly clouded with brown: halteres luteous.

Male? Feelers tawny: chest not striped? knees tawny: cross wing-veins clouded with brown; lower cross-vein much curved inward.

Length of the body $1\frac{1}{2}$—$1\frac{3}{4}$ line; of the wings 3—$3\frac{1}{2}$ lines.

United States.

Notiphila Brasiliensis.

Cinerea; caput subauratum; antennæ nigræ; pectus canum; abdomen e maculis nigris trivittatum; femora testacea apice nigra, antica picea subtus ferruginea; tibiæ ferrugineæ; tarsi nigri; alæ limpidæ.

Cinereous: head slightly gilded in front, whitish along the eyes: mouth and palpi black: feelers black; third joint full thrice the length of the second, almost reaching the epistoma: breast hoary: abdomen elliptical, a little longer than the chest, with three rows of black spots: thighs testaceous, with black tips; fore-thighs pitchy, ferruginous beneath; shanks ferruginous; feet black: wings colourless; veins black, tawny towards the base; lower cross-vein almost upright, hardly bent inward in the middle: halteres yellow. Length of the body 2 lines; of the wings 4 lines.

Brazil.

Notiphila? costalis, Fœm.

Nigra, cervino-tomentosa; caput nigro bivittatum, facie cana; antennæ piceæ; abdomen basi fulvum; pedes picei, tarsis nigris; alæ cinereæ, macula fusca.

Black, tinged with a dull dark fawn-colour covering: front with two black stripes; a row of bristles along each eye; face hoary; epistoma tawny: mouth black: feelers pitchy; third joint linear, almost reaching the epistoma, full thrice the length of the second: abdomen obconical, not longer than the chest, tawny towards the base: legs pitchy; feet black: wings gray; veins black, tawny at the base; a dark brown spot on the tip of the first and second veins; middle cross-vein clouded with dark brown; lower cross-vein almost upright, hardly bent outward; fourth and fifth veins slightly converging towards their tips: halteres yellow. Length of the body 2½ lines; of the wings 5 lines.

Brazil.

Genus EPHYDRA, *Fallen.*

Ephydra pinguis, Fœm.

Nigra ; caput nigro-viride, albo-tomentosa ; antennæ piceæ, arista pubescente ; abdomen nigro-viride ; tibiæ ferrugineæ ; alæ fuscæ, maculis nonnullis apud venas transversas subhyalinis.

Black, shining: head greenish black and covered with white down in front: feelers pitchy; third joint short-conical, but little longer than the second; sixth downy, bare towards the tip: abdomen dark green, obconical, hardly longer than the chest: legs black; knees and shanks ferruginous: wings brown; veins black; cross-veins clouded with dark brown, adjoining which there are some almost colourless marks; lower cross-vein straight, oblique; fifth vein not reaching the border, Length of the body 1½ line; of the wings 4 lines.

United States.

Ephydra australis, Fœm.

Rufo-fusca ; caput cervinum ; antennæ nigræ ; thorax vittis duabus pectoreque canis ; abdominis segmenta marginibus posticis canis ; pedes picei ; alæ fuscæ, maculis 9 limpidis.

Reddish brown: head fawn-colour in front and beneath: feelers black: third joint conical, full twice the length of the second; sixth bare, stout at the base, more than twice the length of the third: chest with two hoary stripes: breast hoary: abdomen obconical, very little longer than the chest, with a hoary band along the hind border of each segment: legs pitchy: wings brown, with nine colourless spots; one beneath the fore border; one large, beneath the second vein and partly beneath the third; four beneath the third; three beneath the fourth, two of them beneath the lower cross-vein; veins black: halteres yellow. Length of the body 1¼ line; of the wings 3 lines.

Van Dieman's Land.

Genus DROSOPHILA, *Fallen.*

Drosophila quadrimaculata.

Testacea; caput flavum; abdomen oblanceolatum, e maculis nigris trivittatum; alæ sublimpidæ, maculis duabus costalibus fuscis.

Testaceous, beset with a few black bristles: head pale yellow: eyes bright red: feelers pale yellow; third joint conical, more than twice the length of the second; sixth black, very slender, feathered on both sides with a few long hairs, more than twice the length of the third: abdomen oblanceolate, much narrower but not longer than the chest, with three rows of black spots forming three interrupted stripes: legs paler than the body: wings almost colourless, with two brown spots on the fore border, one near the base, the other towards the tip: veins black. Length of the body $1\frac{1}{2}$ line; of the wings 3 lines.

United States.

Drosophila albipes, Fœm.

Picea; facies albida; antennæ fulvæ; pectoris latera albida; tibiæ albæ; tarsi flavi; alæ subcinereæ.

Pitchy: furrows of the face oblique, whitish: feelers tawny; third joint long-conical more than twice the length of the second; sixth pitchy, feathered with long hairs, about twice the length of the third: sides of the breast tinged with white: abdomen a little longer and narrower than the chest: shanks white; feet pale yellow: wings pale gray; veins pitchy, tawny at the base: halteres white. Length of the body $1\frac{1}{2}$ line; of the wings $3\frac{1}{2}$ lines.

United States.

Drosophila fronto, Fœm.

Fulva; caput flavum, macula palpisque nigris; thorax subvittatus; abdomen ferrugineum, basi fulvum; alæ subcinereæ, ad costam subfulvæ.

Tawny: head yellow; a black spot on the crown: palpi black: feelers yellow: chest indistinctly striped: abdomen ferruginous, obconical, a little

longer than the chest, tawny at the base: wings pale gray, slightly tawny along the fore border; veins black, tawny at the base: halteres tawny with ferruginous knobs. Length of the body 1½ line; of the wings 3 lines.

United States.

Drosophila linearis.

Fulva, sublinearis; abdomen apice piceum; pedes testacei; alæ fulvæ.

Tawny, almost linear: abdomen longer than the chest, pitchy towards the tip: legs testaceous: wings tawny; veins pitchy, tawny at the base: halteres testaceous. Length of the body 1 line; of the wings 2 lines.

United States.

Drosophila brevis.

Picea; antennæ ferrugineæ; pectus ferrugineum; abdomen segmentorum marginibus posticis ventreque flavis; pedes fulvi; alæ subcinereæ.

Pitchy: feelers ferruginous; third joint nearly round, hardly longer than the second; sixth joint black, beset on each side with very few long bristles: breast ferruginous: abdomen obconical, a little longer than the chest; hind borders of the segments and under side yellow: legs tawny: wings slightly gray; veins ferruginous: halteres yellow. Length of the body 1 line; of the wings 2½ lines.

United States.

Drosophila decemguttata, Fœm.

Ferruginea; abdomen piceum, basi ferrugineum, thorace angustius et multo longius; pedes testacei; alæ fuscæ, albo maculatæ.

Ferruginous: abdomen pitchy, almost spindle-shaped, ferruginous at the base, narrower and much longer than the chest: legs testaceous: wings dark brown, adorned with four white spots, and nearer the base with three white dots and with a white streak on the fore border: veins black, ferruginous at the base: halteres white. Length of the body 1¼ line; of the wings 2½ lines.

United States.

Drosophila minuta.

Nigra, nitens; tibiæ apice tarsique flava; alæ limpidæ.

Black, shining: abdomen wanting: feet and tips of shanks yellow: wings colourless; veins tawny: halteres yellow. Length of the body $\frac{2}{3}$ line; of the wings $1\frac{1}{3}$ line.

United States.

Drosophila tarsalis, Fœm.

Testacea; facies albida; thoracis discus cinereus; abdomen apice piceo trivittatum; pedes antici albido-flavi, postici, femoribus tibiisque apice tarsisque piceis; alæ subcinereæ, ad costam nigræ.

Testaceous: face with a whitish covering: mouth tawny: third joint of the feelers almost conical, much longer than the second; sixth black, tawny at the base, feathered with rather short hairs, more than twice the length of the third: disk of the chest cinereous: abdomen obconical, with three pitchy stripes towards the tip, not longer than the chest: fore-legs whitish yellow; hind-feet and tips of hind-thighs and of hind-shanks pitchy; hind-shanks pitchy at the base: wings slightly gray; fore border black; veins pitchy: halteres yellow. Length of the body $1\frac{3}{4}$ line; of the wings $3\frac{1}{2}$ lines.

Brazil.

Drosophila atra, Mas.

Nigra, nitens; caput testaceum, facie nigra; tibiæ posticæ genuaque fulva; alæ subcinereæ, ad costam piceæ.

Black, shining: head testaceous; face black: mouth pitchy: abdomen obconical, longer than the chest: knees and hind-shanks tawny: wings slightly gray; fore border pitchy; veins tawny: halteres pale tawny. Length of the body $1\frac{1}{2}$ line; of the wings 3 lines.

Brazil.

Genus OPOMYZA, *Fallen.*

Opomyza lineata.

Testacea, ferrugineo trivittatus; antennæ nigræ, basi fulvæ; abdomen sublineare, thorace longius; alæ sublimpidæ.

Testaceous: crown with three ferruginous stripes: mouth pitchy: feelers black, tawny at the base; third joint oblong, more than twice the length of the second; sixth slender, bare, more than twice the length of the third: chest with three ferruginous stripes: abdomen almost linear, longer than the chest: wings almost colourless; veins tawny; lower cross-vein almost straight, slightly oblique. Length of the body 1¾ line; of the wings 3 lines.

Van Dieman's Land.

Genus GYMNOPA, *Fallen.*

Gymnopa nigroænea.

Ænea; antennæ nigræ; abdomen cupreum; pedes nigri; alæ limpidæ.

Brassy: feelers black: abdomen coppery, obconical, a little longer than the chest: legs black: wings colourless; veins black, tawny at the base; lower cross-vein long, straight, oblique, remote from the border. Length of the body 1¼ line; of the wings 3 lines.

United States.

Gymnopa tarsalis.

Nigro-ænea; antennæ fulvæ; abdomen æneo-viride; pedes nigri, tibiis apice genubus tarsisque flavis; alæ subfulvæ.

Brassy black: feelers tawny; third joint conical, about twice the length of the second; sixth black, slender, feathered with a few long hairs, more than twice the length of the third: abdomen brassy green, obconical, a little longer than the chest: legs black: knees, feet, and tips of the

shanks yellow; tips of feet black: wings slightly tawny; veins yellow. Length of the body 1 line; of the wings $2\frac{1}{2}$ lines.

United States.

Genus CHLOROPS, *Meigen*.

Chlorops Brasiliensis.

Flava; thorax nigro trivittatus; abdomen nigrum, apice ferrugineum: alæ limpidæ.

Yellow: chest with three black stripes: abdomen black, ferruginous at the tip: legs yellow: wings colourless; veins black: halteres yellow. Length of the body 1 line; of the wings $1\frac{3}{4}$ line.

Brazil.

1856.

INSECTA SAUNDERSIANA.

Fam. MYCETOPHILIDÆ, *Haliday.*

Genus MYCETOPHILA, *Meig.*

Div. A. *Meig. Dipt.* pl. 9, f. 15.

Subdiv. a. *Meig. Dipt.* vi. 297.

MYCETOPHILA ÆQUALIS, Fœm.

Nigra ; antennæ basi testaceæ ; thorax guttis duabus anticis et abdominis segmenta marginibus posticis testaceis ; pedes testacei, femoribus basi fuscescentibus, tarsis fuscis ; alæ subcinereæ, fusco bifasciatæ ; halteres testacei.

Black, slightly pubescent. Antennæ testaceous at the base. Thorax with a minute testaceous dot on each side in front. Hind borders of the abdominal segments testaceous. Legs testaceous; femora brownish at the base ; tibiæ darker than the femora; tarsi brown. Wings grayish, with two irregular brown bands, which are darkest towards the costa. Halteres testaceous. Length of the body $1\frac{3}{4}$ line; of the wings $3\frac{1}{2}$ lines.

Van Dieman's Land.

Genus LEIA, *Meig.*

Div. B. *Meig. Dipt.* i. 255.

Subdiv. b. *Meig. Dipt.* pl. 9, f. 18.

Leia fulva, Fœm.

Fulva, robusta, subtus testacea; abdominis segmenta fasciis nonnunquam interruptis nigris; pedes testacei, tarsis fuscescentibus; alæ subcinereæ apice obscuriores, venis nigris basi testaceis.

Tawny, stout, testaceous beneath. Abdominal segments with black bands, which are sometimes interrupted. Legs testaceous; tarsi brownish. Wings slightly grayish, rather darker at the tips; veins black, testaceous at the base. Length of the body 1½ line; of the wings 3 lines.

Van Dieman's Land.

Genus BOLETINA, *Stæger.*

Div. a, b. *Ins. Brit. Dipt.* iii. 33.

Boletina helvetica, Mas.

Cinerea; antennæ nigræ, basi testaceæ; thoracis latera et pectus testacea; abdomen nigricans, maculis lateralibus trigonis fulvis; pedes testacei, tarsis nigris; alæ sublimpidæ; halteres testacei.

Cinereous. Antennæ black, testaceous at the base. Sides of the thorax and pectus testaceous. Abdomen blackish, about thrice the length of the thorax, with a triangular tawny spot on each side of every segment. Legs testaceous, long, slender; tarsi black; hind tibiæ with very long slender spurs. Wings nearly limpid; veins blackish, testaceous at the base. Halteres testaceous. Length of the body 4 lines; of the wings 6 lines.

Interlacken, Switzerland.

Genus SCIOPHILA, *Hoffmanseyg.*

Div. a. *Ins. Brit. Dipt.* iii. 36.

Sciophila diversa.

Nigra ; antennæ thorace multo longiores ; thorax vittis tribus cinereis, antice fulvo bimaculatus ; pedes fulvi, tarsis nigris ; alæ subcinereæ ; halteres testacei.

Black. Antennæ very much longer than the thorax. Thorax with three very slender cinereous dorsal stripes, and with a tawny spot on each side in front. Legs tawny, long, slender ; tarsi black ; hind tibiæ with a few very minute spurs. Wings slightly grayish ; veins brown, testaceous at the base ; subcostal vein terminating opposite the interior end of the first cubital areolet, which is full thrice longer than broad, and is opposite the fork of the subapical vein. Halteres testaceous. Length of the body 4 lines ; of the wings 8 lines.

Interlacken, Switzerland.

Div. a, b b b b. *Ins. Brit. Dipt.* iii. 36.

Sciophila par, Mas.

Fusca ; antennæ nigræ, basi testaceæ ; thoracis fasciæ duæ, latera pectusque testacea ; abdominis segmenta marginibus posticis apiceque testaceis ; pedes testacei, tibiis obscurioribus, tarsis nigricantibus ; alæ subhyalinæ apice subcinereæ, arcola cubitali 1a et venæ subapicalis furca infuscatis, venis nigris ; halteres testacei.

Brown. Palpi, two stripes on the thorax, sides, pectus, tip of the abdomen and hind borders of the segments testaceous. Antennæ black, testaceous at the base. Tibiæ dark testaceous ; tarsi blackish. Wings nearly hyaline, grayish at the tips ; first cubital areolet and fork of the subapical vein clouded with brown ; subcostal veinlet opposite the middle of the first cubital areolet, which is of moderate size and about twice longer than broad ; veins black. Halteres testaceous. Length of the body 2 lines ; of the wings 4 lines.

Van Dieman's Land.

Genus MYCETOBIA, *Meig.*

Mycetobia divergens, Mas.

Nigra, nitens; abdomen fasciis indistinctis fulvis; pedes testacei, tarsis fuscis; alæ subcinereæ, venis nigris.

Black, shining. Antennæ longer than the thorax. Abdomen with dark indistinct tawny bands. Legs testaceous; tarsi black. Wings slightly tinged with gray; veins black, tawny at the base. Halteres testaceous. Length of the body 2 lines; of the wings 4 lines.

This species differs from *M. pallipes* in the structure of the radial vein, which is much curved, and extends to the tip of the wing.

United States.

Genus SCIARA, *Fabr.*

Div. A, a. *Meig. Dipt.* vi. 305.

Sciara primogenita, Fœm.

Atra; antennæ sat validæ, thorace vix breviores; abdomen latiusculum, thorace duplo longius; pedes validi, subpubescentes; alæ nigricantes, latiusculæ, basi et apud costam nigræ.

Deep black. Antennæ rather stout, nearly as long as the thorax. Abdomen rather broad, about twice the length of the thorax. Legs stout, minutely pubescent. Wings blackish, rather broad, black towards the base and along the costa; veins black; forks of the subapical vein almost as long as the basal part. Length of the body 3 lines; of the wings 8 lines.

Cayenne?

Div. A, b. *Meig. Dipt.* vi. 305.

Sciara lurida, Fœm.

Nigra; abdomen piceum, subtus fulvum; pedes fulvi, tibiis tarsisque fuscis; alæ fuscæ; halteres fulvi.

Sciara lurida, *Cat. Dipt. Brit. Mus.* i. 106.

Black. Abdomen piceous, tawny beneath. Legs tawny; tibiæ and tarsi brown. Wings brown; veins brown, tawny at the base. Halteres tawny. Length of the body 2 lines; of the wings 4 lines.

United States.

Sciara antica, Fœm.

Atra; thorax guttis duabus anticis ferrugineis; pedes nigri, femoribus anticis pallide piceis; alæ nigricantes.

Deep black. Thorax with a ferruginous dot on each side in front. Legs black; fore femora pale piceous. Wings blackish; veins and halteres black. Length of the body 3½ lines; of the wings 7 lines.

Amazon Region.

Sciara fasciata, Fœm.

Nigra; caput et thorax cinereo tomentosa; abdominis segmenta marginibus posticis albidis; pedes picei, tarsis nigris; alæ nigricantes.

Black. Head and thorax with cinereous tomentum. Hind borders of the abdominal segments whitish. Legs piceous; tarsi black. Wings blackish; veins and halteres black. Length of the body 2½ lines; of the wings 5 lines.

Brazil.

Sciara cognata.

Sciara cognata, *Cat. Dipt. Brit. Mus.* i. 103.

Brazil. It also inhabits Madeira, and is said to draw blood like the *Culicidæ*.

Sciara Indica, Fœm.

Nigra; antennæ sat graciles, thorace vix longiores; thorax guttis duabus anticis minimis ferrugineis; abdomen pubescens, thorace triplo longius, rufo bivittatum; pedes longiusculi, sat validi; alæ fuscescentes, apud costam nigricantes.

Black. Antennæ rather slender, hardly longer than the thorax. Thorax with a minute ferruginous dot on each side in front. Abdomen

pubescent, about thrice the length of the thorax, with a red stripe along each side. Legs rather long and stout. Wings brownish, blackish along the costa; veins black; basal part of the subapical vein whitish, much longer than its fork. Length of the body 3½ lines; of the wings 7 lines.

East Indies.

Sciara reciproca, Fœm.

Nigra, obscura; abdomen piceo-nigrum, thorace duplo longius; pedes graciles, sat longi; alæ cinereæ.

Black, dull. Abdomen piceous-black, about twice the length of the thorax. Legs slender, moderately long. Wings gray; radial vein and cubital vein black; the rest paler; basal part of the subapical vein longer than its fork. Length of the body 1½ line; of the wings 3 lines.

Van Dieman's Land.

Sciara confusa, Fœm.

Nigra; antennæ graciles, thoracis longitudine; abdomen obscure nigro-piceum, subtuberculatum, subtus ferrugineum, thorace plus duplo longius; pedes sat longi; alæ cinereæ, apud costam nigricantes.

Black. Antennæ slender, as long as the thorax. Abdomen dull piceous-black, minutely tuberculated, more than twice the length of the thorax, ferruginous beneath. Legs moderately long. Wings gray, blackish along the costa; radial vein and cubital vein black, the rest paler; basal part of the subapical vein very much longer than its fork. Length of the body 2½ lines; of the wings 4 lines.

Cape.

Genus PLATYURA, *Meig.*

Div. B. *Meig. Dipt.* pl. 8, f. 19.

PLATYURA VENUSTA, Fœm.

Nigra; caput subtus et antennæ basi fulva; thorax canus, vitta dorsali nigra, lateribus testaceo vittatis; abdomen albo bifasciatum, segmentorum marginibus posticis subtus testaceis; pedes pallide testacei, tibiis obscure testaceis, tarsis nigris; alæ subhyalinæ, apice fuscæ, venis nigris; halteres testacei.

Black. Head tawny beneath. Antennæ moderately stout, tawny at the base, as long as the thorax. Thorax hoary, with a dorsal black stripe, and a testaceous stripe on each side. Abdomen with a white band on the second suture and another on the fourth; under side with a testaceous band on the hind border of each segment. Legs pale testaceous; coxæ and tibiæ darker; tarsi black. Wings hardly tinged with gray, brown at the tips; veins black, testaceous at the base. Halteres testaceous. Length of the body 3 lines; of the wings 5 lines.

East Indies.

Fam. CECIDOMYIDÆ, *Haliday.*

Genus CECIDOMYIA, *Latr.*

CECIDOMYIA UMBRA.

Obscure testacea; antennæ nigræ; pedes fusci, longi, graciles, fasciis albidis; alæ nigro-cinereæ, lituris transversis albidis.

Dull testaceous. Antennæ black. Legs brown, long, slender, with whitish bands. Wings blackish gray, with transverse whitish marks. Length of the body 3 lines; of the wings 6 lines.

Described from an injured specimen.

South America.

Fam. BIBIONIDÆ, *Haliday.*

Genus PLECIA, *Hoffmansegg.*

Plecia bimaculata, Mas.

Nigra; thoracis latera, coxæ femoraque anteriora rufa; pedes picei; alæ nigricantes, venis nigris.

Black, shining. Thorax red on each side. Legs piceous; anterior femora and coxæ red. Wings blackish; veins black. Length of the body $2\frac{1}{2}$ lines; of the wings 4 lines.

United States.

Plecia costalis, Fœm.

Nigra, obscura; alæ cinereæ aut albidæ, apud costam nigræ, venis nigris aut testaceis.

Black, dull. Wings gray, black towards the costa; veins black. *Var.*—Wings whitish, black towards the costa; veins testaceous, except along the costa. Length of the body 4 lines; of the wings 12 lines.

Columbia.

Fam. CHIRONOMIDÆ.

Genus CHIRONOMUS, *Fabr.*

Div. 1. Alæ nudæ.

Subdiv. 1. Halteres pallidi.

Chironomus redeuns, Fœm.

Fulva; antennæ fuscæ; thorax fusco quadrivittatus; abdomen fuscum fasciis canis, subtus fulvum; pedes testacei, femoribus tibiis et tarsorum articulis apice fuscis; alæ limpidæ; halteres testacei.

Tawny. Antennæ brown, tawny at the base. Thorax with four brown stripes, the outer pair paler, broader and shorter than the inner

pair. Abdomen brown, with a hoary band on the hind border of each segment; under side tawny. Legs testaceous; tips of the femora, of the tibiæ and of the joints of the tarsi brown. Wings limpid; veins brown, strongly defined; discal mark distinct. Halteres testaceous. Length of the body 3 lines; of the wings 5 lines.

United States.

Chironomus vicarius, Mas et Fœm.

Testaceus; antennæ fuscæ; thorax fusco quadrivittatus; pedes pubescentes, tibiis et tarsorum articulis apice fuscis; alæ limpidæ, venis testaceis, litura discali nigra. Mas.—*Abdomen supra fuscum, maculis lateralibus lanceolatis albidis; abdomen vitta dorsali fusca.*

Testaceous. Antennæ brown. Thorax with four brown bands, the outer pair broad and short. Legs pubescent, long, slender; fore metatarsus a little longer than the fore tibia; tips of the tibiæ and of the joints of the tarsi brown. Wings limpid; veins testaceous; discal mark black. *Male.*—Stripes of the thorax paler than those of the female. Abdomen above brown, with two lanceolate whitish spots on each segment. Legs more pubescent than those of the female, especially the fore tarsi, which are rather stout. *Female.*—Abdomen with a brown dorsal stripe. Length of the body 5 lines; of the wings 8 lines.

East Indies.

Chironomus alternans, Mas.

Testaceus; antennæ fuscæ; thorax vittis duabus dorsalibus lateribusque viridibus; abdomen viride, pubescens, vitta interrupta fusca dorsali; pedes virides, pubescentes, tibiis et tarsorum articulis apice fuscescentibus; alæ limpidæ, venis testaceis, litura discali subobscuriore.

Testaceous. Antennæ brown. Thorax green on each side, and with two green dorsal stripes. Abdomen green, pubescent, with an interrupted brown dorsal stripe. Legs green, long, slender, pubescent; tips of the tibiæ and of the joints of the tarsi brownish; fore tibia very much longer than the fore metatarsus. Wings limpid; veins testaceous; discal

mark a little darker, not distinct. Length of the body 4 lines; of the wings 6 lines.

New South Wales.

Chironomus applicatus, Fœm.

Canus; antennæ fuscæ; thorax fusco trivittatus; abdomen fuscum, fasciis ventreque canis; pedes viridescentes, subpubescentes, tarsis fere totis femoribusque tibiisque apice fuscescentibus; alæ subcinereæ, venis fuscis, litura discali obscuriore.

Hoary. Antennæ brown, testaceous at the base. Thorax with three brown stripes; the lateral pair indistinct. Abdomen brown, with a hoary band on the hind border of each segment; under side hoary. Legs greenish, long, slender, slightly pubescent; tarsi, except towards the base and tips of the femora and of the tibiæ, brownish; fore tibia very much longer than the fore metatarsus. Wings grayish; veins brown; discal mark darker brown. Halteres testaceous. Length of the body $4\frac{1}{2}$ lines; of the wings 7 lines.

Van Dieman's Land.

Chironomus duplex, Fœm.

Albido-viridis; antennæ testaceæ, fusco fasciatæ; thorax vittis tribus obscure cinereo-fuscis; abdomen fuscum, albido tomentosum, fasciis lateribusque albido-viridibus; pedes viridescentes, tarsorum articulis apice fuscis; alæ limpidæ, venis halteribusque testaceis, litura discali fusco.

Whitish green. Antennæ testaceous; sutures and tips brown. Thorax with three dark grayish brown stripes. Abdomen above brown, with whitish tomentum; sides and hind borders of the segments whitish green. Legs greenish, long, slender; tips of the joints of the tarsi brown. Wings limpid; veins testaceous; discal mark brown. Halteres testaceous. Length of the body $4\frac{1}{2}$ lines; of the wings 7 lines.

Van Dieman's Land.

Chironomus imitans, Mas.

Pallide viridis; antennæ fuscæ; thorax vittis tribus pectorisque disco nigro-cinereis; pedes tibiis et tarsorum articulis apice fuscescentibus; alæ limpidæ, venis albidis, litura discali fusca.

Pale green. Antennæ brown. Thorax with three blackish gray stripes. Pectus with a blackish gray disk. Abdomen with a broad blackish gray band on the fore border of each segment. Legs pale green, long, slender; tips of the tibiæ and of the joints of the tarsi brownish. Wings limpid; veins whitish; discal mark brown. Length of the body 4 lines; of the wings 6 lines.

Van Dieman's Land.

Chironomus oppositus, Mas.

Pallide testaceus aut viridis; antennæ fuscæ; thorax vittis tribus rufescentibus; abdomen pubescens, viride fasciis fuscis; pedes pallide virides pubescentes, tarsis apice fuscis; alæ limpidæ, venis albidis, litura discali fusca.

Pale testaceous, green? while living. Antennæ brown. Thorax with three reddish stripes. Abdomen pubescent, green, with a brown band on each segment. Legs pale green, long, slender, pubescent; tarsi brown towards the tips; fore tibia very much longer than the fore metatarsus. Wings limpid; veins whitish; discal transverse vein brown. Length of the body $3\frac{1}{2}$ lines; of the wings 5 lines.

Van Dieman's Land.

Chironomus conjunctus, Mas et Fœm.

Viridis; antennæ pallide fuscæ; thorax vittis tribus rufescentibus; pedes pallide virides, tarsis apice fuscis; alæ limpidæ, venis pallidis, litura discali nulla. Mas.—*Abdomen pubescens apice fuscum.*

Green. Antennæ pale brown. Thorax with three reddish stripes. Legs pale green, slender; tarsi brown towards the tips; fore tibia much longer than the fore metatarsus. Wings limpid; veins pale; no discal

mark. *Male.*—Abdomen pubescent, brown at the tip, much longer than that of the female. Length of the body 2—2½ lines; of the wings 3½ lines.

Van Dieman's Land.

Genus TANYPUS, *Meigen.*

TANYPUS CHOREUS, *Meigen.*

United States.

Genus PACHYLEPTUS, n. g.

Mas. Corpus gracile. Caput parvum, subrotundum. Palpi mediocriter longi. Thorax convexus. Abdomen gracile, subcylindricum, basi subcontractum, thorace duplo longius. Pedes posteriores longiusculi, sat graciles, femoribus subclavatis; antici raptorii, femoribus crassis, tibiis subarcuatis. Alæ angustæ.

Nearly allied to *Ceratopogon*. *Male.*—Body slender. Head small, nearly round. Palpi moderately long. Antennæ mutilated. Thorax convex. Abdomen nearly cylindrical, somewhat contracted towards the base, much more slender than the thorax, and almost twice its length. Posterior legs rather long and slender; femora subclavate. Fore legs raptorious; femora thick, tibiæ slightly curved, closely applied to the femora. Wings narrow; veins like those of *Ceratopogon* in structure.

PACHYLEPTUS FASCIATUS, Mas.

Niger, nitens; alæ limpidæ, fasciis tribus nigricantibus latiusculis; halteres albi.

Black, shining, as are also the legs. Wings limpid, with three rather broad blackish bands. Halteres white. Length of the body 2 lines; of the wings 4 lines.

South America.

Fam. CULICIDÆ, *Haliday.*

Genus CULEX, *Linn.*

Culex conterrens, Fœm.

Fusca ; proboscis et palpi fulva, apice nigra ; antennæ nigræ, basi fulvæ ; thorax vitta dorsali testacea ; pectus testaceum ; pedes fulvi, robusti, femoribus tibiisque apice nigricantibus, tarsis nigricantibus albido fasciatis ; alæ subcinereæ apud costam fuscescentes.

Brown. Proboscis and palpi tawny, with black tips. Proboscis stout, straight, pubescent, as long as the head and the thorax. Antennæ black, tawny at the base. Thorax with a testaceous dorsal stripe. Pectus testaceous. Abdomen wanting. Legs tawny, pubescent, very stout; tips of the femora and of the tibiæ blackish ; tarsi blackish, with whitish bands. Wings grayish, brownish towards the costa; veins brown. Length of the body 4? lines ; of the wings 6 lines.

United States.

Culex sollicitans, Fœm.

Nigra, cervino tomentosa ; proboscis testacea, apice nigra ; antennæ basi testaceæ ; thorax nigro bivittatus ; latera et pectus albida ; abdomen maculis lateralibus nigris quadratis ; pedes graciles, tarsis nigris albo cinctis ; alæ subcinereæ, venis testaceis nigro hirtis ; halteres testacei apice fusci.

Black, with fawn-coloured tomentum. Proboscis long, slender, curved, testaceous, black towards the tip. Antennæ black, testaceous at the base. Thorax with two black stripes; sides and pectus whitish. Abdomen with two lateral black quadrate spots on each segment; the two apical segments with narrower spots. Legs slender; tarsi black, with white bands. Wings grayish ; veins testaceous, fringed with minute black hairs. Halteres testaceous, with brown knobs. Length of the body 3 lines ; of the wings 5 lines.

United States.

Culex perturbans, Fœm.

Fusca; proboscis nigra, fascia lata sordide albida; palpi nigri, basi testacei; antennæ nigræ; scutellum cinereo vittatum; pectus ferrugineum; abdomen fasciis ventreque cinereis; pedes testacei, femoribus apice nigris, tibiis nigro trifasciatis, tarsis nigris albo cinctis; alæ subcinereæ, venis testaceis.

Brown. Proboscis black, long, slender, straight, with a broad dingy whitish band in the middle. Palpi black, testaceous at the base. Antennæ black. Scutellum with a cinereous stripe. Pectus ferruginous. Abdomen with a cinereous band on the fore border of each segment; under side cinereous. Legs testaceous; femora with black tips; tibiæ with three black bands; tarsi black, with a white band at the base of each joint. Wings grayish; veins testaceous, very thickly ciliated; plumes brown. Halteres testaceous. Length of the body 3 lines; of the wings 5 lines.

United States.

Culex territans, Fœm.

Pallide fusca; proboscis testacea, apice fuscescens; antennæ basi fuscæ; thorax testaceo trivittatus; abdomen fasciis albidis, subtus testaceum; pedes testacei; alæ subcinereæ, venis fuscis subciliatis; halteres testacei.

Pale brown. Proboscis testaceous, slender, brownish at the tip. Antennæ brown, testaceous at the base, as long as the proboscis. Thorax with three very slender testaceous stripes. Abdomen testaceous beneath; dorsal segments with whitish hind borders. Legs testaceous, long and slender. Wings grayish; veins brown, slightly ciliated. Halteres testaceous. Length of the body 3 lines; of the wings 6 lines.

United States.

Culex excrucians, Fœm.

Fulva; proboscis testacea, apice fuscescens; antennæ fuscæ, basi testaceæ; abdomen fuscescens, fasciis testaceis; pedes testacei, tarsis pallide fuscis testaceo fasciatis; alæ subcinereæ, venis testaceis subciliatis; halteres apice fusci.

Tawny. Proboscis testaceous, long, straight, slender, brownish at the tip. Antennæ brown, testaceous towards the base, a little shorter than the proboscis. Pectus paler than the thorax. Abdomen brownish, with a testaceous band on the hind border of each segment. Legs testaceous, long, slender; tibiæ darker than the femora; tarsi very pale brown, with a testaceous band at the base of each joint. Wings very slightly grayish; veins testaceous, slightly ciliated. Halteres testaceous, with brown knobs. Length of the body 4 lines; of the wings 7 lines.

Nova Scotia.

Culex terrens, Mas.

Fusca, argenteo tomentosa; thorax fusco bivittatus; abdomen nigricans, subtus argenteo fasciatum, lateribus pubescentibus; pedes nigricantes, femoribus apice albis, tarsis albo fasciatis; alæ subcinereæ, venis fuscis subciliatis; halteres testacei apice fusci.

Brown, with silvery white tomentum. Proboscis slender, straight, as long as the palpi. Antennæ with whitish reflections. Thorax with two brown stripes. Abdomen blackish, very pubescent on each side, with silvery white bands beneath. Legs blackish; femora with white tips; tibiæ partly with whitish reflections; tarsi with white bands. Wings grayish; veins brown, slightly ciliated. Halteres testaceous, with brown knobs. Length of the body 3 lines; of the wings 5 lines.

South America.

Culex exagitans, Fœm.

Fusca; albo varia; palpi nigri, apice albi; thorax albido bivittatus; abdomen testaceo varium, fasciis albidis maculisque lateralibus argenteis; pedes gracillimi, femoribus testaceis apice fuscis, genubus et tarsoram fasciis argenteis; alæ subcinereæ.

Brown, with white spangles. Proboscis slender, curved, partly testaceous. Palpi black, with silvery white tips. Thorax with two slender whitish stripes. Abdomen mostly testaceous in the disk, with a whitish band at the base of each segment, and with a row of silvery white dots along each side. Legs very slender; femora testaceous, with brown tips; knees silvery white; tarsi with silvery white bands. Wings grayish; veins brown, fringed with brown hairs. Halteres testaceous? Length of the body $2\frac{1}{2}$ lines; of the wings 4 lines.

Parà.

This species much resembles *C. toxorhynchus*, but the latter has not the whitish stripes on the thorax, nor the white dots on the abdomen.

Culex discrucians, Mas et Fœm.

Nigricans; pectus argenteum; abdomen purpureum, subtus testaceo fasciatum; pedes purpurei, femoribus testaceis, genubus albo guttatis, tarsis fascia subapicali alba; alæ subcinereæ, venis fuscis subciliatis; halteres testacei, apice fusci. Mas.—*Antennæ testaceo fasciatæ.*

Blackish. Proboscis long, slender. Pectus silvery whitish. Abdomen purple, with testaceous bands beneath. Legs purple, long, slender; femora testaceous, purplish towards the tips; a white dot on each knee; tarsi with a white subapical band. Wings grayish; veins brown, slightly ciliated. Halteres testaceous, with brown tips. *Male.* — Proboscis rather longer than the antennæ. Palpi much longer than the proboscis. Antennæ with testaceous bands. Length of the body 3 lines; of the wings 5 lines.

South America.

Culex perterrens, Fœm.

Fusca, sat valida; proboscis testacea, apice fusca; pectus testaceum; abdomen purpurascens, fasciis ventreque testaceis; pedes testacei, validi, pubescentes, femoribus tibiisque apice tarsisque fuscis; alæ cinereæ, venis nigricantibus subciliatis; halteres testacei.

Brown, rather stout. Proboscis testaceous, long, brown towards the tip. Antennæ brown, very little shorter than the proboscis. Pectus testaceous. Abdomen purplish, with a testaceous band on the fore border of each segment; under side testaceous. Legs testaceous, stout, pubescent; femora and tibiæ brown towards the tips; tarsi brown. Wings gray; veins blackish, slightly ciliated. Halteres testaceous. Length of the body 4 lines; of the wings 6 lines.

South America.

Culex flavicosta, Fœm.

Fulva; proboscis testacea, apice nigra; palpi testacei; antennæ fuscæ, basi testaceæ; pedes robusti, testacei, femoribus tibiis et tarsorum articulis apice nigris, tibiis posticis subpilosis; alæ subcinereæ, apice obscuriores, apud costam flavescentes, venis fuscis ciliatis.

Tawny. Proboscis and palpi testaceous. Proboscis slender, straight, black at the tip. Antennæ brown, testaceous at the base. Legs long, stout, testaceous; tips of the femora, of the tibiæ and of the joints of the tarsi black; hind tibiæ thinly clothed with short hairs; hind tarsi, excepting the metatarsus, black, the joints testaceous at the base. Wings grayish, darker at the tips, yellowish along the costa; veins brown, ciliated. Length of the body 3½ lines; of the wings 6 lines.

Amazon Region.

Culex commovens, Fœm.

Fusca, robusta ; proboscis testacea, supra apiceque nigricans ; palpi testacei ; antennæ testaceæ fasciis nigricantibus ; thorax vittatus ? ; abdomen fulvo fasciatum ; pedes fulvi, validi, femoribus tibiis et tarsorum articulis apice fuscescentibus ; alæ limpidæ, venis testaceis fusco notatis.

Described from injured specimens. Brown, stout. Proboscis long, stout, straight, testaceous, blackish towards the base above and at the tip. Palpi testaceous, rather more than half the length of the proboscis. Antennæ testaceous, with very slender blackish bands, shorter than the antennæ. Thorax striped? Abdomen with tawny bands. Legs tawny, stout; tips of the femora, of the tibiæ and of the joints of the tarsi brownish. Wings limpid; veins testaceous, with some brownish marks. Length of the body 4 lines; of the wings 7 lines.

New Holland.

Culex crucians, Fœm.

Fusca ; proboscis fulva, apice fusca ; antennæ nigræ, basi fulvæ ; pectus fulvum ; abdomen fasciis albido-testaceis ; coxæ et femora testacea ; alæ subcinereæ, venis fuscis subciliatis basi testaceis ; halteres testacei.

Brown. Proboscis slender, straight, tawny, brown at the tip. Antennæ black, shorter than the proboscis, tawny at the base. Pectus tawny. Abdomen darker than the thorax, with a whitish testaceous band in front of each segment. Legs brown ; coxæ and femora testaceous. Wings grayish ; veins brown, slightly ciliated, testaceous at the base. Halteres testaceous. Length of the body 3½ lines ; of the wings 6 lines.

Van Dieman's Land.

Genus ANOPHELES, *Meigen.*

Anopheles annulipes, Fœm.

Fusca, gracillima, cano tomentosa; proboscis ex parte testacea; palpi albidi, fusco fasciati; thorax subvittatus; pedes longissimi, gracillimi, femoribus tibiisque albido fasciatis, femoribus basi testaceis, tarsis fascia alba, posticis longissimis; alæ subcinereæ, venis fuscis dense ciliatis albido fasciatis, costa nigricante maculis tribus albidis; halteres albidi.

Brown, very slender, with hoary tomentum. Proboscis partly testaceous, rather longer than the palpi. Palpi whitish, with brown bands, longer than the antennæ. Thorax indistinctly striped. Legs very long and slender; femora and tibiæ with numerous whitish bands; femora testaceous towards the base; tarsi with a white band; hind tarsi extremely long. Wings slightly grayish: veins brown, with whitish bands, thickly ciliated; costa blackish, with three oblong whitish spots. Halteres whitish. Length of the body 3—3½ lines; of the wings 6—7 lines.

Van Dieman's Land.

Fam. TIPULIDÆ, *Haliday.*

Genus TRICHOCERA, *Meigen.*

Trichocera ocellata, Fœm.

Cinerea; antennæ nigræ; abdomen piceo-nigrum, apice et subtus apicem versus fulvum, pedes fulvi, tarsis nigris; alæ limpidæ, ocellis plurimis incompletis cinereis; halteres testacei, apice fusci.

Gray. Antennæ black. Abdomen piceous-black, tawny at the tip and beneath towards the tip. Legs dull tawny; tarsi black. Wings limpid, with very numerous gray marks, several of which form more or less perfect ringlets. Halteres testaceous, with brown knobs. Length of the body 3 lines; of the wings 8 lines.

East Indies.

Genus LIMNOBIA, *Meigen.*

Div. E. *Meig. Dipt.* i. 125, pl. 6, f. 2.

Limnobia basalis, Fœm.

Nigra, nitens ; alæ nigricantes, venis nigris.

Black, shining. Oviduct short, nearly cylindrical. Wings blackish ; veins and halteres black. Length of the body 5 lines ; of the wings 10 lines.

Van Dieman's Land.

Div. I. *Meig. Dipt.* i. 131, pl. 5, f. 5.

Limnobia turpis, Fœm.

Nigro-fusca ; antennæ setaceæ, moniliformes, thorace breviores ; caput et thorax cinereo tomentosa ; abdomen piceum, apice fulvum ; pedes fulvi, femoribus tibiisque apice tarsisque nigris ; alæ subcinereæ, venulis transversis infuscatis.

Blackish brown. Antennæ black, setaceous, moniliform, rather shorter than the thorax. Head and thorax with cinereous tomentum. Abdomen piceous, tawny at the tip. Oviduct cylindrical, rather long. Legs tawny ; tarsi and tips of the femora and of the tibiæ black. Wings grayish ; veins brown, testaceous towards the base ; transverse veinlets clouded ; stigma brown. Halteres testaceous. Length of the body 5 lines ; of the wings 10 lines.

Canada.

Div. K. *Meig. Dipt.* i. 132, pl. 5, f. 6.

Limnobia aterrima, Fœm.

Atra, obscura ; antennæ setaceæ, moniliformes, thorace paullo breviores ; oviductus piceus, nitens ; alæ nigræ.

Deep black, not shining. Antennæ, legs, wings and halteres black. Antennæ setaceous, moniliform, a little shorter than the thorax.

Oviduct piceous, shining, compressed. Length of the body 3 lines; of the wings 6 lines.

East Indies.

Div. Q. *Meig. Dipt.* i. 146, pl. 6, f. 6.

Rhamphidia?

Limnobia prominens, Fœm.

Testacea; proboscis nigra, capite non longior; antennæ nigræ; pedes longi, graciles, femoribus tibiis tarsisque apice fuscescentibus; alæ limpidæ, venis testaceis.

Testaceous. Proboscis and antennæ black. Proboscis not longer than the head. Legs long, slender; tips of the femora, of the tibiæ and of the tarsi brownish. Wings limpid; veins, stigma and halteres testaceous. Length of the body 4 lines; of the wings 10 lines.

United States.

Div. X. *Cat. Dipt. Brit. Mus.* i. 50.

Structure of the wing-veins like that of *L. pilipes*, Fabr.

Limnobia lanuginipes, Mas.

Testacea; caput et pectus cano tomentosa; antennæ nigræ, thorace breviores; thoracis discus fuscus, cano bivittatus; abdominis segmenta fulvo marginata; apex fulvus; pedes fulvi; femora tibiæque dense pubescentia; tarsi apice nigri; alæ subcinereæ, venis fuscis; halteres testacei.

Testaceous. Head and pectus with hoary tomentum. Antennæ black, shorter than the thorax. Disk of the thorax brown, with two hoary stripes. Abdomen tawny on the borders of the segments and at the tip. Legs tawny; femora and tibiæ thickly pubescent; tarsi black towards the tips. Wings slightly grayish; veins brown, testaceous at the base. Halteres testaceous. Length of the body 5 lines; of the wings 12 lines.

Cape.

Div. n.

Structure of the wing-veins much like that of Div. D. *Meig. Dipt.* i. 122, pl. 4, f. 15, but the discal areolet is much longer, and the transverse veinlet between the third externo-medial vein and the subanal is much nearer the base of the discal areolet.

Limnobia irrorata.

Limnobia irrorata, *Wied. Auss. Zweifl.* i. 574, 3.

East Indies.

Div. n.

Structure of the wing-veins like that of Div. E. *Meig. Dipt.* i. 125, pl. 6, f. 2, with the exception of the first externo-medial vein, which is not forked.

Limnobia flaviceps? Fœm.

Limnobia flaviceps? *Wied. Auss. Zweifl.* i. 550, 16.

Wiedemann describes the wings of *L. flaviceps* as fuliginous; in the insect here referred to that species they are blackish, with a white band which traverses the interior half of the discal areolet.

South America.

Div. n.

Mediastinal vein at a little before two-thirds of the length of the wing; subcostal ending at about three-fourths of the length, connected with the radial by a transverse veinlet at its tip; radial and cubital springing from a common petiole, which is less than half their length, and which forms a right angle near its base; radial forked near its base; cubital forming near its base a very obtuse angle, whence proceeds the first externo-medial; the latter is rectangular near its base and is forked towards its tip, and is connected with the third externo-medial by two transverse veinlets; the outer one of these forms a slight angle, whence proceeds the second externo-medial vein; third externo-medial connected with the subanal by a transverse veinlet, which joins the middle of the hind side of the discal areolet.

LIMNOBIA BITERMINATA, Fœm.

Fulva; antennæ fuscæ, setaceæ, pilosæ, submoniliformes, basi fulvæ; abdomen fuscum, basi fulvum; pedes testacei, longi, graciles; alæ subcinereæ, venis fuscis, venulis transversis apud costam nebulosis; halteres testacei.

Tawny. Antennæ brown, setaceous, pilose, submoniliform, tawny at the base, not half the length of the thorax. Abdomen brown, tawny at the tip. Legs testaceous, long, slender. Wings very slightly grayish; veins brown, testaceous at the base; transverse veinlets towards the costa clouded with brown. Halteres testaceous. Length of the body 6 lines; of the wings 10 lines.

United States.

Div. n.

Structure of the wing-veins much like that of Div. N. *Meig. Dipt.* i. 133, pl. 6, f. 5, but the petiole whence spring the radial and cubital veins forms a right angle and emits the stump of a vein near its base, and the veinlet between the third externo-medial vein and the subanal is nearer the middle of the hind side of the discal areolet, which is as long as the second externo-medial vein.

LIMNOBIA IGNOBILIS, Fœm.

Cinerea; caput antice fulvum; palpi et antennæ nigra, basi fulva; antennæ setaceæ, non moniliformes, thorace multo breviores; thorax fusco trivittatus; latera pectusque cana; abdomen subtus fulvum, apice rufescens; pedes fulvi; alæ subcinereæ, venulis transversis fusco subnebulosis.

Cinereous. Head tawny in front. Palpi and antennæ black, tawny at the base. Antennæ setaceous, not moniliform, much shorter than the thorax. Thorax with three brown stripes; sides and pectus hoary. Abdomen tawny beneath, reddish at the tip; oviduct rather long. Legs tawny; tarsi blackish? Wings grayish; veins black, tawny at the base; transverse veinlets slightly clouded with brown. Halteres tawny. Length of the body 5½ lines; of the wings 12 lines.

North America.

Div. n.

Structure of the wing-veins like that of Div. K. *Meig. Dipt.* i. 132, pl. 5, f. 6, but the veinlet between the first externo-medial and the third is hardly angular, and the veinlet between the third externo-medial and the subanal joins the hind side of the discal areolet.

Limnobia chrysoptera, Fœm.

Atra; antennæ setaceæ, non moniliformes, thorace multo breviores; alæ luteæ, apice nigricantes.

Deep black. Antennæ setaceous, not moniliform, much shorter than the thorax. Wings luteous, blackish towards the tips. Length of the body 9 lines; of the wings 14 lines.

South America.

Div. n.

Mediastinal vein ending at about three-fourths of the length of the wing, connected with the subcostal by a veinlet near its tip; subcostal ending at beyond five-sixths of the length; radial springing from the subcostal at a little before the tip of the mediastinal; cubital springing from the subcostal at a little before the base of the radial to which it is parallel; first externo-medial springing from the cubital, forming near its base an almost right angle, forked at two-thirds of its length, joined with the third externo-medial by two veinlets, and the angle formed by the outer one of these two veinlets emits the second externo-medial vein, and has its hind side very oblique and more than twice the length of its fore side; third externo-medial connected with the subanal by a transverse veinlet, which is opposite the base of the discal areolet.

Limnobia calopus, Fœm.

Fusca; caput subtus canum; antennæ nigræ, pilosæ, setaceæ, submoniliformes, thorace multo breviores; latera pectusque cana; abdomen cano fasciatum, apice rufescens; pedes nigri, dense pubescentes; femora alba, fusco bifasciata; tibiæ albo bifasciatæ; alæ subcinereæ, fusco subtrifasciatæ.

Brown. Antennæ black, pilose, setaceous, submoniliform, much shorter than the thorax. Head hoary beneath and about the eyes. Thorax with three dark brown stripes; the middle one much in advance of the lateral pair; sides and pectus hoary. Abdomen with a hoary band on the hind border of each segment; tips reddish. Legs black, thickly pubescent to the tip of the tarsi; femora white, with two brown bands near the tips; tibiæ with two white bands. Wings very slightly grayish; veins brown, tawny at the base; forks of the veins and transverse veinlets clouded with brown, which hue forms three imperfect and irregular bands. Halteres whitish, with brown knobs. Length of the body 8 lines; of the wings 14 lines.

South America.

Div. n.

Structure of the wing-veins much like that of Div. F. *Meig. Dipt.* i. 126, pl. 6, f. 3, but the first externo-medial vein is not forked, the discal areolet is not twice longer than broad, the transverse veinlet between the third externo-medial vein and the subanal joins the hind side of the discal areolet near the base of the latter, and the above-mentioned veinlet is longer than the part of the subanal vein between it and the border of the wing.

Limnobia tenebrosa, Mas.

Atra; antennæ setaceæ, subpubescentes, non moniliformes, thorace multo breviores; pedes longi, sat validi; alæ nigricantes, strigis nonnullis sublimpidis.

This species much resembles *L. nigra*, Wied., but the latter is described as having the wings yellowish at the base. Deep black. Antennæ setaceous, minutely pubescent, not moniliform, much shorter than

the thorax. Legs long, rather stout. Wings blackish; some of the areolets with nearly limpid streaks. Length of the body 8 lines; of the wings 16 lines.

South America.

Div. n.

Structure of the wing-veins much like that that of Div. K. *Meig. Dipt.* i. 132, pl. 5, f. 6, but the transverse veinlet between the subcostal vein and the radial joins the fork of the latter, and the transverse veinlet between the third externo-medial vein and the subanal is nearly opposite the hind side of the discal areolet.

Limnobia elegans.

Limnobia elegans, *Wied. Auss. Zweifl.* ii. 617, 5.

Port Natal.

Genus GERANOMYIA, *Haliday.*

Geranomyia pilipes.

Ferruginea; proboscis nigra; antennæ nigræ, pilosæ; abdomen pubescens; pedes pubescentes, femoribus tibiisque nigro fasciatis, tarsis nigris; alæ subcinereæ, fasciis duabus costalibus apicibusque fuscis.

Ferruginous. Proboscis and antennæ black, the latter pilose. Abdomen pubescent. Legs pubescent; femora and tibiæ with blackish bands; tarsi black. Wings very slightly grayish, with two brown spots along the costa; tips brownish; veins brown, testaceous at the base. Length of the body 5 lines; of the wings 10 lines.

Amazon Region.

Genus TIPULA, *Linn.*

Tipula simulata, Fœm.

Fusca, cano tomentosa; palpi nigri; antennæ nigræ, setaceæ, pilosæ, basi fulvæ, thoracis dimidio vix longiores; thorax fusco vittatus; abdomen testaceo varium, fusco fasciatum et univittatum, apice ferrugineum; pedes ferruginei, graciles, subpilosi, tarsis apice nigris; alæ albæ, maculis nonnullis fuscis; halteres testacei, apice nigri.

Brown, with hoary tomentum. Palpi black. Antennæ black, setaceous, pilose, tawny at the base, hardly more than half the length of the thorax. Thorax with indistinct brown stripes. Abdomen partly dull testaceous, with a brown stripe; each segment with an imperfect brown band; tip ferruginous. Legs ferruginous, slender; tibiæ and tarsi very minutely pilose; tarsi black towards the tips. Wings white, with several brown spots, which are darkest along the costa; veins black. Halteres testaceous, with black knobs. Length of the body 10 lines; of the wings 18 lines.

Canada.

Tipula platymera, Mas.

Fusca, cano tomentosa; caput antice fulvum; antennæ setaceæ, verticillato pilosæ, thorace vix breviores, articulis fusco fasciatis; thorax fusco vittatus; abdomen ferrugineum, fusco bivittatum; pedes fulvi, tarsis apice fuscis; alæ fuscescentes, maculis nonnullis albidis tribusque subcostalibus obscure fuscis; halteres testacei.

Brown, with hoary tomentum. Proboscis, palpi and antennæ tawny. Antennæ setaceous, verticillate pilose, nearly as long as the thorax; joints alternately globose and elongated; the globose joints brown. Thorax with five brownish stripes. Abdomen ferruginous, with a brown stripe along each side. Legs tawny, moderately long and slender; tarsi brown towards the tips. Wings brownish, with several whitish spots, and with three dark brown spots towards the costa; veins black, tawny at the base and along the costa. Halteres testaceous. Length of the body 8 lines; of the wings 20 lines.

Canada.

Tipula disjuncta, Mas.

Testacea ; vertex pallide fuscus ; antennæ fuscæ, setaceæ, subverticillato-pilosæ, basi testaceæ, corporis dimidio longiores ; thorax fusco trivittatus ; abdomen fuscescens ; pedes subpubescentes, femoribus tibiisque apice tarsisque fuscis ; alæ subcinereæ, apud costam subluteæ ; halteres testacei, apice fusci.

Testaceous. Vertex pale brown. Antennæ brown, setaceous, slightly verticillate pilose, testaceous towards the base, more than half the length of the body ; joints brown and nearly globose at the base. Thorax with three brown stripes. Abdomen mostly brown. Legs moderately long ; tibiæ and tarsi very minutely pubescent ; tarsi and tips of the femora and of the tibiæ brown. Wings grayish, pale luteous along the costa as far as the stigma, which is pale brown ; veins brown, testaceous at the base and along the costa. Halteres testaceous, with brown knobs. Length of the body 7 lines ; of the wings 14 lines.

United States.

Tipula dejecta, Mas.

Cinerea ; caput et pectus cana ; antennæ nigræ, filiformes, subpilosæ, thorace vix longiores ; thorax fusco bivittatus ; abdominis segmenta marginibus posticis albidis ; pedes testacei, longi, graciles, femoribus tibiisque apice fuscis, tarsis nigris ; alæ subcinereæ ; halteres testacei.

Cinereous. Head and pectus hoary. Antennæ black, filiform, slightly pilose, hardly longer than the thorax. Thorax with two indistinct brown stripes. Hind borders of the abdominal segments whitish. Legs testaceous, long, slender; tips of the femora and of the tibiæ brown ; tarsi black. Wings grayish ; veins brown, testaceous at the base and along the costa ; stigma brown. Halteres testaceous. Length of the the body 4 lines ; of the wings 6 lines.

United States.

Tipula seticornis.

Ferruginea; antennæ longæ, fuscæ, filiformes, dense pubescentes, basi fulvæ, thorax fuscus, testaceo trivittatus; pedes longi, graciles; femora fasciis duabus subapicalibus, una testacea, altera fusca; alæ fuscæ, latiusculæ, maculis obscurioribus albidisque, venis fuscis basi fulvis; halteres testacei.

Tipula seticornis? *Macq. Dipt. Exot.*

Var.? Ferruginous. Antennæ brown, filiform, thickly pubescent, tawny at the base, about half the length of the body. Thorax brown, with three slender testaceous dorsal stripes. Legs long, slender; femora with two subapical bands, the one testaceous, the other brown. Wings brown, rather broad, with several whitish and a few dark brown spots; veins brown, tawny at the base. Halteres testaceous. Length of the body 9 lines; of the wings 20 lines.

Colombia.

Tipula filigera, Mas.

Testacea; palpi nigri; antennæ nigræ, setaceæ, basi fulvæ, thoracis dimidio breviores; thorax fulvus, fusco quadrivittatus; pectus albido-testaceum; abdominis segmenta marginibus posticis fuscis; pedes nigri, longissimi, gracillimi; femoribus basi coxisque testaceis; alæ limpidæ, stigmate fusco.

Testaceous. Palpi black. Antennæ black, setaceous, tawny at the base, less than half the length of the thorax. Thorax tawny, with four pale brown stripes. Pectus whitish testaceous. Abdomen with a brown band on the hind border of each segment. Legs black, very long and slender; femora towards the base and coxæ testaceous. Wings limpid; veins black, tawny at the base; stigma dark brown. Length of the body 6 lines; of the wings 14 lines.

South America.

Tipula tincta, Fœm.

(Pachyrhina, *Macq.*)

Nigra ; caput luteum ; antennæ setaceæ, subpilosæ, basi luteæ, thoracis dimidio breviores ; thorax margine antico, vittis duabus dorsalibus maculisque duabus posticis luteis maculisque duabus lateralibus flavis ; abdomen luteum, fascia lata postica nigra ; pedes graciles, femoribus basi luteis ; alæ nigricantes.

Black. Head luteous. Palpi black. Antennæ black, setaceous, slightly pilose, luteous at the base, not half the length of the thorax. Thorax luteous in front, and with two luteous stripes; a large yellow spot on each side, and two luteous spots on the metathorax. Abdomen luteous, with a broad black band near the tip. Legs black, slender; femora luteous towards the base. Wings blackish; veins black. Length of the body 7 lines; of the wings 12 lines.

Port Natal.

Tipula vicaria, Mas.

Pallide cervina, cinereo tomentosa ; antennæ setaceæ, subverticillato pilosæ, fusco fasciatæ, thorace multo breviores ; thorax fusco subvittatus ; abdomen fusco bivittatum ; pedes ferruginei, longi, graciles, vix pubescentes, femoribus basi coxisque testaceis, tarsis fuscis ; alæ cinereæ, apud costam subluridæ, fascia albida, stigmate fusco.

Pale fawn-colour, with cinereous tomentum. Antennæ setaceous, slightly verticillate pilose, with slender brown bands, very much shorter than the thorax. Thorax with indistinct brown stripes. Abdomen with two darker brown stripes. Legs ferruginous, long, slender, hardly pubescent; femora towards the base and coxæ testaceous; tarsi brown. Wings gray, somewhat lurid along the costa, with an incomplete whitish band by the stigma, which is pale brown; veins brown, tawny at the base and along the costa. Halteres tawny, with brown tips. Length of the body 9 lines; of the wings 20 lines.

East Indies.

Tipula delta, Fœm.

(Pachyrhina, *Macq.*)

Testacea; palpi capite longiores; antennæ fuscæ, setaceæ, basi testaceæ; thoraæ flavus, fusco trivittatus; abdomen maculis dorsalibus trigonis nigris; pedes longi, gracillimi, femoribus tibiis tarsisque apice fuscis; alæ limpidæ, stigmate fusco.

Testaceous. Palpi longer than the head. Antennæ brown, setaceous, slightly pilose, testaceous at the base, a little shorter than the palpi, and very much shorter than the thorax. Thorax and pectus yellow; thorax with three broad brown stripes. Abdomen with a triangular black dorsal spot on each segment. Legs long and very slender; tarsi towards the tips, and tips of the femora and of the tibiæ brown. Wings limpid; veins black, testaceous at the base; stigma brown. Length of the body 9 lines; of the wings 16 lines.

East Indies.

Tipula viridis, Mas.

Pallide viridis; caput apud oculos luteum; palpi nigri; antennæ fuscæ, setaceæ, basi testaceæ, thoracis dimidio breviores; thoracis discus fuscus, testaceo bivittatus; pectus albidum; abdomen fulvum, basi viride; pedes fulvi, graciles, tarsis fuscis longissimis; alæ limpidæ, stigmate testaceo.

Pale green. Head luteous about the eyes. Proboscis testaceous. Palpi black. Antennæ brown, setaceous, testaceous towards the base, less than half the length of the thorax. Disk of the thorax brown, with two slender indistinct testaceous stripes. Pectus whitish. Abdomen tawny, pale green towards the base. Legs tawny, slender, very minutely pubescent; tips of the femora and of the tibiæ brown; tarsi brown, extremely long. Wings limpid; veins testaceous; stigma pale testaceous. Length of the body 8 lines; of the wings 22 lines.

New Zealand.

Genus PTILOGYNA, *Westw.*

Ptilogyna par, Mas et Fœm.

Fulva ; caput postice, thorax et pectus cano tomentosa ; antennæ fuscæ, fascia fulva ; thorax fasciis quatuor schistaceis fusco marginatis ; abdomen lutescens, nigro varium, cano bivittatum ; pedes ferruginei, longi, graciles, subpubescentes, femoribus tibiisque apice tarsisque fuscis ; alæ subcinereæ, apud costam subluridæ, stigmate fusco.

Tawny. Head behind, thorax and pectus with hoary tomentum. Antennæ brown, not half the length of the thorax; second and third joints tawny. Thorax with four slate-coloured brown-bordered stripes, which are dilated and interrupted hindward. Abdomen somewhat luteous, with blackish marks, and with a hoary stripe along each side. Legs ferruginous, long, slender, very minutely pubescent; tarsi and tips of the femora and of the tibiæ brown. Wings grayish, slightly lurid along the costa; veins brown, testaceous at the base; stigma pale brown, with an adjoining white mark. Halteres testaceous, with brown knobs. Length of the body 9—12 lines; of the wings 18—20 lines.

New South Wales.

Ptilogyna simplex, Fœm.

Testacea, nitens ; antennæ basi subramosæ, thorace multo breviores ; thorax antice fuscus, flavo quadrivittatus ; abdomen supra fulvum ; pedes longi, graciles, subpubescentes, tarsis fuscescentibus ; alæ limpidæ, apud costam testaceæ, stigmate fusco.

Testaceous, shining. Antennæ much shorter than the thorax, with five short branches on the inner side near the base. Thorax brown in front, adorned with four pale yellow stripes; the outer pair curved, and connected in front with the inner pair. Abdomen tawny above, and at the tip. Legs long, slender; tibiæ and tarsi minutely pubescent; tarsi brownish. Wings nearly limpid, testaceous along the costa as far as the stigma, which is brown; veins black, testaceous at the base and along the costa. Length of the body 9 lines; of the wings 16 lines.

South America.

Genus GYNOPLISTIA, *Westw.*

Gynoplistia elegans, *Saunders MSS.*

Mas. *Atra; abdomen luteum, basi et apicem versus nigrum; pedes lutei, femoribus tibiisque apice nigris, tarsis nigris basi luteis; alæ nigricantes, basi luteæ, maculis duabus apicibusque limpidis.*

Male. Deep black. Abdomen luteous, black at the base and towards the tip. Legs luteous; tips of the femora and of the tibiæ black; tarsi black, luteous at the base. Wings blackish, limpid towards the tips, and along part of the hind border, with two limpid spots near the costa, and one by the base, which is luteous; veins pale, except in the blackish part. Length of the body 5 lines; of the wings 8 lines.

New South Wales.

Gynoplistia apicalis, *Saunders MSS.*

Mas et Fœm. *Nigro-cyanea; antennæ et pedes nigra; pectus albidum; abdomen apice luteum; femora basi lutea; tibiæ posticæ albo fasciatæ; alæ limpidæ, fasciis fuscis, venis nigris basi luteis; halteres testacei.*

Male and Female. Blackish blue. Antennæ and legs black. Pectus whitish. Abdomen luteous at the tip. Femora luteous towards the base; hind tibiæ with a white band. Wings limpid, with three dark brown spots along the costa, and with two paler brown spots in the disk; tips brown; veins black, luteous at the base. Halteres testaceous. Length of the body 4—4½ lines; of the wings 10 lines.

Van Dieman's Land.

Gynoplistia fumipennis, *Saunders MSS.*

Fœm. *Atra; pectus canescens; femora basi testacea; tibiæ posticæ fascia subapicali alba; alæ nigricantes.*

Fem. Deep black. Pectus somewhat hoary. Femora testaceous towards the base; hind tibiæ with a white band towards the tip. Wings blackish; veins black. Length of the body 5 lines; of the wings 9 lines.

Van Dieman's Land.

Genus CTENOPHORA, *Fabr.*

Ctenophora succedens, *Fœm.*

Nigra; palpi ferruginei; antennæ luteæ, basi nigræ; thorax fascia antica ferruginea vittisque duabus lateralibus flavis; abdomen fulvum, nigro univittatum; alæ subcinereæ, stigmate nigricante.

Structure of *C. atrata*. Black. Palpi ferruginous. Antennæ luteous, black at the base. Thorax with a slender ferruginous band in front, and with a pale yellow stripe along each side. Abdomen tawny, with a black dorsal stripe; tip black. Wings very slightly grayish; veins black, testaceous at the base; stigma blackish. Length of the body 10 lines; of the wings 14 lines.

Canada.

Ctenophora constans, Fœm.

Nigra, cano tomentosa; antennæ graciles, setaceæ, submoniliformes, vix pectinatæ, thorace multo breviores; abdomen fuscum, fasciis ventreque fulvis; coxæ et femora fulva, hæc apice nigra; tibiæ basi fulvæ, alæ luridæ, maculis duabus subcostalibus nigricantibus.

Black, with hoary tomentum. Antennæ slender, setaceous, submoniliform, very slightly pectinated, much shorter than the thorax. Abdomen brown; hind borders of the segments and under side tawny. Legs black; tibiæ dull tawny towards the base; coxæ and femora tawny, the

latter with black tips. Wings lurid, with two subcostal blackish spots; veins black, tawny at the base. Halteres testaceous, with brown knobs. Length of the body 6 lines; of the wings 10 lines.

——— ?

Ctenophora fumiplena, Fœm.

Atra; palpi nigro-picei; abdomen luteo bifasciatum; pedes nigri, tibiis albido cinctis; alæ nigricantes, strigis nonnullis pallidis maculisque quatuor albis.

Structure of *C. ardens*. Deep black. Palpi piceous-black. Abdomen with two luteous bands; one near the base; the other a little beyond, much narrower than the first. Legs black; tibiæ with a whitish band near the base. Wings blackish, with some pale streaks, and with four white spots, three of which form a band, and the fourth is more towards the base of the wing, and very near the hind border. Length of the body 8 lines; of the wings 14 lines.

China.

Fam. RHYPHIDÆ, *Haliday.*

Genus RHYPHUS, *Latr.*

Rhyphus brevis.

Fulva; caput postice albido-testaceum; antennæ fuscæ, basi fulvæ; thorax fusco trivittatus; metathorax cinereus; alæ subcinereæ, fasciis nonnullis interruptis fuscis, venis stigmateque nigris.

Tawny. Head behind whitish testaceous. Antennæ brown, tawny at the base. Thorax with three broad brown stripes. Metathorax cinereous. Abdomen testaceous beneath. Wings very slightly grayish, with several interrupted and irregular brown bands; stigma and veins black, the latter tawny at the base. Length of the body 2—3 lines; of the wings 6—8 lines.

Van Dieman's Land.

ADDENDA.

Fam. TABANIDÆ, *Leach.*

Genus TABANUS, *Linn.*

Tabanus intereuns, Mas.

Fulvus ; caput subtus flavo-album ; palpi flavescentes ; antennæ apice piceæ ; thorax subferrugineus, vix vittatus ; pectus albidum ; alæ cinereæ, venis transversis fusco marginatis.

Tawny. Head yellowish white beneath. Eyes darker and with very small facets in front. Proboscis slender. Palpi yellowish. Antennæ piceous towards the tips; third joint armed with a long curved horn. Thorax somewhat ferruginous, hardly striped. Pectus whitish. Abdomen not longer than the thorax. Femora with white hairs. Wings gray; stigma brown; transverse veins clouded with brown; veins black, ferruginous in front and towards the base; fore fork of the cubital vein simple, forming near the base an obtuse angle. Length of the body 5 lines; of the wings 11 lines.

Rio Grande.

Tabanus temperatus, Fœm.

Piceus, cinereo tomentosus; caput supra ferrugineum, apud oculos luteum, callo piceo; antennæ rufæ, basi nigræ; thorax ferrugineo quinque vittatus, scapulis testaceis; abdomen vittis tribus maculatibus testaceis, lateribus basi ferrugineis, segmentorum marginibus posticis subtus testaceis; pedes fulvi, tarsis, tibiis anticis apice femoribusque anticis nigris; alæ cinereæ, basi costa et apud venas discales fuscæ; halteres fulvi, apice albidi.

Piceous, with cinereous tomentum. Head tomentose, ferruginous above, luteous about the eyes, testaceous behind and beneath; callus piceous. Eyes æneous; all the facets very small. Palpi cinereous. Antennæ black; first joint prolonged into an acute angle at the tip above; second red, forming above a slender acute horn; third red, curved; its horn short, small, and forming an almost right angle. Thorax with five indistinct ferruginous stripes; scapulæ testaceous. Abdomen piceous, ferruginous on each side towards the base, with three macular pale testaceous stripes; the lateral spots diffuse; the dorsal spots triangular, and successively decreasing in size; hind borders of the segments testaceous beneath. Legs tawny; tarsi, fore femora, excepting the tips, and tips of the fore tibiæ black. Wings gray, brown at the base, along the costa, and about the discal veins; veins black; fore fork of the cubital vein simple, forming an obtuse and rounded angle near its base; alulæ brown. Halteres tawny, with whitish tips. Length of the body 9 lines; of the wings 18 lines.

Port Natal.

Tabanus bipartitus, Fœm.

Fulva; caput album, vertice ferrugineo, callo nigro; palpi albi; antennæ nigræ; thorax supra niger, cano quadrivittatus, disco postice lateribusque fulvis; abdomen e maculis albis univittatum, basi macula nigra, apicem versus nigrum; femora tarsique nigra, illa apice fulva; alæ subcinereæ, venis nonnullis nigro marginatis; halteres albi.

Tawny. Head white; vertex ferruginous; callus black, obcapitate. Eyes æneous; all the facets very small. Palpi white. Antennæ black;

first joint forming an acute angle above in front; third slender, slightly curved; its horn very short and minute, forming an almost right angle. Thorax black above, with four hoary stripes, tawny on each side and in the disk behind. Abdomen black towards the tip, and with a black spot at the base, and a white triangular spot on each of the intermediate segments. Femora and tarsi black, the former with tawny tips. Wings grayish; veins black; transverse veins, and some of the longitudinal veins clouded with black; fore fork of the cubital vein simple, forming near its base a very obtuse and somewhat rounded angle. Halteres white. Length of the body 6 lines; of the wings 13 lines.

Port Natal.

Tabanus signifer, Mas.

Piceus; thorax vittis tribus lateribus pectoreque albidis; abdomen basi ferrugineum, vittis tribus abbreviatis e maculis albis trigonis, maculaque apud segmentum 2um testacea fere semicirculari; genua fulva; tibiæ posticæ breviter nigro hirtæ; alæ subcinereæ, ad costam fuscescentes.

Piceous. Eyes darker, and composed of much smaller facets in front and on each side than elsewhere. Thorax with three whitish stripes; sides and pectus whitish. Abdomen ferruginous towards the base; segments from the first to the fourth with triangular white spots on each side; second segment with a pale testaceous nearly semicircular spot on the hind border; third and fourth with a large triangular white spot on each. Knees tawny; hind tibiæ with very short black hairs. Wings grayish, brownish along the costa; veins piceous; fore fork of the cubital vein forming near its base an obtuse but sharply defined angle, which emits a branch. Length of the body 8 lines; of the wings 15 lines.

China.

Genus CHRYSOPS, *Meigen*.

Chrysops Sinensis, Fœm.

Niger; caput flavum, vertice cinereo, callo postice nigro antice ferrugineo; palpi fulvi; antennæ fulvæ, capite longiores, apice nigræ; abdomen cinereo-nigrum, lateribus basi flavis; pedes fulvi; alæ limpidæ, ad costam fuscæ, fascia obliqua fusca postice attenuata.

Black. Head yellow; vertex gray; callus of the vertex black, of the front ferruginous. Palpi tawny. Antennæ tawny, longer than the head, black towards the tips. Pectus gray. Abdomen grayish black; first and second segments pale yellow on each side. Legs tawny. Wings limpid, brown along the costa and with an oblique brown band, which is attenuated towards the hind border. Length of the body 4 lines; of the wings 8 lines.

China.

Genus HÆMATOPOTA, *Meigen*.

Hæmatopota ruficornis, Fœm.

Ferruginea; vertex maculis tribus nigris testaceo marginatis; palpi nigricantes, basi fulvi; antennæ fulvæ, apice obscuriores; thorax testaceo trivittatus, lateribus scutello pectoreque albidis; abdomen e maculis albidis bivittatum, segmentorum marginibus posticis vittisque duabus ventralibus albidis; pedes testacei, femoribus apice piceis, tibiis fasciis tribus tarsisque apice nigricantibus, tibiis anticis nigris albo fasciatis, tarsis anticis nigris; alæ cinereæ, ocellis plurimis albidis; halteres albidi.

Hæmatopa ruficornis? *Macq. Dipt. Exot. Suppl.* i. 45, 3.

Ferruginous. Vertex with three black testaceous-bordered spots; the middle one hindward and smaller than the others. Head whitish beneath. Palpi blackish, tawny at the base. Antennæ tawny, darker towards the tips. Thorax with three testaceous stripes; sides, scutellum, and pectus whitish. Abdomen with two dorsal rows of whitish spots;

hind borders of the segments whitish; under side with a whitish stripe on each side. Legs testaceous; femora with piceous tips; tibiæ with three blackish bands; tarsi blackish towards the tips; fore tibiæ black, with a white band near the base; fore tarsi black. Wings gray, with numerous whitish ringlets and other marks; stigma and marks on the transverse veinlets blackish. Halteres whitish. Length of the body 5 lines; of the wings 8 lines.

Port Natal.

Hæmatopota decora, Fœm.

Nigro-fusca; caput albidum, maculis tribus nigris albido marginatis; palpi albi; antennæ nigræ, capite longiores; thorax albo trivittatus; abdomen lateribus, basi subtus et segmentorum marginibus posticis glauco-albis; pedes nigri, tarsis posticis tibiisque basi albis, tibiis intermediis nigro fasciatis; alæ albidæ, guttis variis nigro-cinereis fasciisque duabus diffusis nigro-cinereis ex parte albido guttatis; halteres albi.

Blackish brown. Head whitish on the vertex and behind, white beneath; front with three black whitish-bordered spots, the middle one small and hindward. Palpi white. Antennæ black, rather longer than the head. Thorax with three much interrupted white stripes; the middle one dilated hindward. Scutellum with a dark border. Abdomen glaucous-white towards the base beneath and on each side above and on the hind borders of the segments. Legs black; tibiæ white towards the base; middle tibiæ with a white band; hind tarsi white at the base. Wings whitish, with various blackish gray dots, and with two diffuse blackish gray partly whitish-dotted bands; stigma black. Halteres white. Length of the body 4 lines; of the wings 7 lines.

Port Natal.

Fam. BOMBYLIDÆ, *Leach.*

Subfam. THEREVITES.

Genus THEREVA, *Latr.*

Thereva innotata.

Cinerea, vix pilosa; caput et pectus albida; scapulæ fulvæ; abdomen subtus basi lateribusque canis; pedes picei, genubus fulvis, tarsis nigris; alæ cinereæ.

Cinereous, hardly pilose. Head, excepting the vertex, and pectus whitish. Thorax with a few black bristles on each side; scapulæ tawny. Abdomen hoary on each side and beneath towards the base. Legs piceous; knees tawny; tarsi black. Wings gray; veins and halteres brown. Length of the body 5 lines; of the wings 8 lines.

New Zealand.

Fam. ASILIDÆ, *Leach.*

Genus DASYPOGON, *Meigen.*

Dasypogon subcontractus, Mas.

Aurato-flavus; antennæ rufo-fulvæ; articulus 3us lanceolatus, pubescens, 1o et 2o conjunctim longior; thorax vittis tribus nigro-cinereis; abdomen nigrum, basim versus testaceum; pedes rufo-fulvi; alæ ferrugineæ, areolarum discis sublimpidis.

Gilded-yellow. Vertex piceous about the ocelli. Face flat. Mystax with very few yellow bristles. Proboscis, palpi and antennæ reddish tawny. Third joint of the antennæ lanceolate, pubescent, longer than the first and the second together. Thorax with three grayish black stripes. Abdomen black, shining, nearly twice the length of the thorax; first, second and third segments testaceous; first with a piceous disk;

second and third rather narrow; third and the following segments together subfusiform; tip testaceous, pilose. Legs reddish tawny, stout, fore tibiæ with small black apical spurs. Wings somewhat ferruginous; disks of most of the areolets nearly limpid; veins ferruginous. Halteres yellow. Length of the body 9 lines; of the wings 16 lines.

Amazon District.

Dasypogon torridus, Mas.

Niger; thorax cinereo tomentosus; antennarum articulus 3us fusiformis, sat latus; thorax albido bivittatus; abdomen rufum, apicem versus nigrum; pedes obscure rufi, femoribus supra tarsisque nigris; alæ nigro-fuscæ.

Black. Head with cinereous tomentum. Third joint of the antennæ fusiform, rather broad. Thorax with two whitish stripes. Pectus whitish. Abdomen red, black towards the tip, which is red beneath. Legs dark red; femora above and tarsi, except towards the tips, black. Wings blackish brown, paler at the tips and along the hind borders. Halteres testaceous, with ferruginous knobs. Length of the body 6 lines; of the wings 10 lines.

Port Natal.

Subgenus MICROSTYLUM, *Macq.*

Dasypogon partitus, Fœm.

Canum; antennæ nigræ; thorax supra cinereus, fascia media albida duabusque lateralibus fuscis; abdomen apicem versus nigrum; pedes picei, femoribus anterioribus subtus rufis, posticis rufis apice piceis; alæ sublimpidæ, venis fusco subnebulosis.

Allied to *D. Saverrio* and to *D. Blæsus*. Hoary. Head whitish, with whitish hairs. Face flat. Epistoma prominent. Mystax with a few white bristles. Antennæ black; third joint elongate, fusiform. Thorax cinereous above, with two brown stripes, which include a whitish stripe. Abdomen oblanceolate, slender, nearly thrice the length of the

thorax; black, shining and transversely striated towards the tip, which is armed with black spurs. Legs piceous, with white spines; anterior femora red beneath; hind femora red, with piceous tips. Wings nearly limpid; veins ferruginous, very slightly clouded with brown. Halteres tawny. Length of the body 11 lines; of the wings 16 lines.

Africa.

Genus DISCOCEPHALA, *Macq.*

Discocephala fervida, Mas.

Nigra, pilis longiusculis flavescentibus; caput antice cinereo tomentosum, postice subtusque canum; abdomen rufo-fulvum, apice vittaque ventrali nigris; pedes flavi, femoribus tibiis et tarsorum articulis apice coxisque nigris, femoribus posticis subtus nigro spinosis; alæ fuscæ, ad costam nigræ, apud marginem posticum cinereæ; halteres ferruginei.

Black, clothed with rather long yellowish hairs. Head with cinereous tomentum in front, hoary behind and beneath. Thorax with cinereous stripes. Pectus hoary. Abdomen reddish tawny, black at the tip and with a black stripe beneath. Legs yellow, shining; coxæ black; tips of the femora, of the tibiæ and of the joints of the tarsi black; hind femora black for more than half the length from the tips, armed beneath with black spines. Wings brown, gray along the hind border, blackish along the costa; veins black, tawny at the base. Halteres ferruginous. Length of the body 5 lines; of the wings 8 lines.

Port Natal.

Genus LAPHRIA, *Fabr.*

Laphria purpurascens.

Nigra, pilosa; caput cinereum, subtus albidum alboque hirtum; thorax albido unifasciatus et bivittatus, lateribus pectoreque albidis; abdomen purpurascens, apice fulvum; pedes cyanco-nigri, albido pilosi; alæ subcinereæ, venis transversis fusco subnebulosis.

Nearly allied to *L. pyrrhopyga.*

Black, hairy. Head cinereous above, excepting a black stripe, whitish and clothed with white hairs beneath. Face slightly convex. Mystax with black bristles. Third joint of the antenna fusiform, rather broad. Thorax with a whitish band and two whitish stripes; sides and pectus whitish. Abdomen purplish; fifth segment towards the tip and sixth tawny. Legs bluish black, thickly clothed with long whitish hairs. Wings slightly grayish; veins black; transverse veins very slightly clouded with brown. Halteres with ferruginous tips. Length of the body 5 lines; of the wings 9 lines.

Amazon District.

SYSTEMATIC INDEX.

The system in Insecta Britannica (Diptera) is here adopted.

MYCETOPHILIDÆ . 415
MYCETOPHILA . . 415
æqualis . 415
LEIA 416
fulva . . . 416
BOLETINA . . . 416
helvetica . 416
SCIOPHILA . 417
diversa . 417
par . . 417
MYCETOBIA . . . 418
divergens . . 418
SCIARA 418
primogenita . 418
lurida . . 418
antica . . 419
fasciata . . 419
cognata . . 419
Indica . 419
reciproca . . 420
confusa . 420
PLATYURA . 421
venusta 421
CECIDOMYIDÆ . 421
CECIDOMYIA . . . 421
umbra . . . 421
BIBIONIDÆ . . 422
PLECIA 422
bimaculata . . 422
costalis . . 422
CHIRONOMIDÆ . 422
CHIRONOMUS . . . 422
redeuns . . 422
vicarius . . 423
alternans . . 423
applicatus . . 424
duplex . . 424
imitans . . 425
oppositus . . 425
conjunctus . . 425
TANYPUS . . 426
choreus . . 426
PACHYLEPTUS 426
fasciatus 426

CULICIDÆ . . . 427
CULEX 427
conterrens . . 427
sollicitans . . 427
perturbans . . 428
territans . . 428
excrucians . . 429
terrens . . 429
exagitans . . 430
discrucians . . 430
perterrens . . 431
flavicosta . . 431
commovens . . 432
crucians . . 432
ANOPHELES . . . 433
annulipes . . 433
TIPULIDÆ . . 433
TRICHOCERA . . . 433
ocellata . . 433
LIMNOBIA . . . 434
basalis . . 434
turpis . . . 434
aterrima . . 434
prominens . . 435
lanuginipes . . 435
irrorata . . 436
flaviceps . . 436
biterminata . . 437
ignobilis . . 437
chrysoptera . . 438
calopus . . 439
tenebrosa . . 439
elegans . . 440
GERANOMYIA . . . 440
pilipes . . . 440
TIPULA 441
simulata . . 441
platymera . . 441
disjuncta . . 442
dejecta . . 442
seticornis . . 443
filigera . . 443
tincta . . . 444
vicaria . . 444
delta . . . 445
viridis . . . 445
PTILOGYNA . . . 446
par . . . 446
simplex . . 446
GYNOPLISTIA . . . 447
elegans . . 447
apicalis . . 447
fumipennis . . 448
CTENOPHORA . . . 448
succedens . . 448
constans . . 448
fumiplena . . 449
RHYPHIDÆ . . 449
RHYPHUS . . . 449
brevis . . . 449

INDEX.

STRATIOMIDÆ . 77
ODONTOMYIA . . . 77
histrio . . . 77
excocta . . . 78
aterrima . . 78
picea . . . 78
exul . . . 79
solennis . . 79

NEMOTELUS . . . 80
capensis . 80
advena . . . 80

BIASTES . . . 80
indicus . . . 81

METABASIS . . . 81
rostratus . . 81

CHRYSOCHLORA . . 82
plana . . . 82
tincta . . 82

SARGRIS 83
debilis . . . 83

CACOSIS 83
niger . . . 84

PTILOCERA . . . 84
continua . . 84

XYLOPHAGIDÆ . . 1
XYLOPHAGUS . . . 1
persequus . . 1

SUBULA 2

INOPUS 2
despectus . . 2

PHYCUS 2

DIMASSUS . . . 2
terminalis . . 3
divisus . . . 3

DIALYSIS . . . 4
dissimilis . . 4

CYCLOTELUS . . . 4
nigroflamma . . 4
pruinosus . . 5
socius . . . 6
lætus . . . 6

NONACRIS . . . 7
transequa . . 7

TABANIDÆ . . . 7
PANGONIA . . . 7

(NACERIA) . . . 7

TABANIDÆ
(Fidena) 8
(Dicrania) . . . 8
(Melpia) 8
(Scaptia) . . . 8
(Pangonia) . . . 9
(Tacina) 9
(Phara) 9
(Clanis) 9
(Osca) 10
(Philoliche) . . . 10
(Scione) 10
(Plinthina) . . . 10
(Scarphia) . . . 10
(Lilæa) 11
nana . . . 11
comprehensa . . 11
exeuns . . . 12
submacula . . 13
alboatra . . 13
obesa . . . 14
concolor . . 14
constans . . 15
Jacksonii . . 15
Lerda . . . 16
Adrel . . . 16
divisa . . . 17
notabilis . . 18
umbra . . . 19
fusiformis . . 19
incompleta . . 20
directa . . . 20
Tabanus 21
solstitialis . . 22
infusus . . . 23
mutatus . . 23
conterminus . . 24
Tabanus
erythrotelus . . 25
rufofrater . . 26
incisus . . . 26
scutellaris . . 27
obliquus . . 28
tinctus . . . 29
ferrifer . . . 30
submacula . . 30
detersus . . 31
perplexus . . 32
basirufus . . 32
hirtitibia . . 33
adustus . . . 34
simplex . . 34
discifer . . . 35
pudens . . . 36
trifascia . . 37
litigiosus . . 37
subsenex . . 38
dorsivitta . . 39
ferruginosus . . 40
terminatus . . 41
manifestus . . 41
Noctis . . . 42
pervasus . . 43
diurnus . . 43
albipalpus . . 44
socialis . . . 45
infans . . . 45
siccus . . . 46
albulus . . . 46
Pyrrhus . . 47
albimedius . . 48
tenens . . . 49
pilaris . . . 49
crassus . . . 50
vagus . . . 50
rubiginosus . . 51
umbrosus . . 52
hirtus . . . 52
puella . . . 53
sanguineus . . 54
obconicus . . 54
fervidus . . 55
consocius . . 56
pulinea . . . 56
calidus . . . 57
abstersus . . 58
ligatus . . . 59
sequens . . . 60
Janus . . . 61

TABANUS
planus . . . 61
connexus . . 62
contactus . . 63
hispidus . . 63
variatus . . 64
honestus . . 64
fulviger . . 65
rufoniger . . 66
redactus . . 66
senior . . . 67
intereuns . . 450
temperatus . . 451
bipartitus . . 451
signifer . . . 452

DICHELACERA . . . 68
fasciata . . 68
multifascia . . 68
prætereuns . . 69
vacillans . . 70
sparsa . . . 71

SCEPSIS 71
nivalis . . . 71

CHRYSOPS . . . 72
excitans . . 73
provocans . . 73
stimulans . . 73
Sinensis . . 453

HÆMATOPOTA . . 453
ruficornis . . 453
decora . . . 454

ACANTHOMERA . . . 74
magnifica . . 74

ACROCERIDÆ . . 202
EXETASIS . . . 202
tumens . . . 203

HENOPS 203
basalis . . 203
costalis . . 203

ASILIDÆ . . . 84
DIOCTRIA . . . 85
Tasmanica . . 85
tenuis . . . 86
Horsleyi . . 86

DASYPOGON . . . 87
carbo . . . 87
spectans . . 88
rapax . . . 88
letifer . . . 89
castigans . . 89
examinans . . 90
inserens . . 91
occidens . . 91
festinans . . 92
videns . . . 93
tristis . . . 93
insertus . . 94
inclusus . . 94
basalis . . . 95
imbutus . . 96
apiformis . . 97
trimelas . . 97
pulverifer . . 98
dilutus . . . 98
subcontractus . 455
torridus . . 456
partitus . . 456

CYRTOPOGON . . . 99
laphrides . . 99

DISCOCEPHALA . . . 100
alboatra . . 100
fervida . . .

CABASA 100
rufithorax . 100

PROLEPSIS . . . 101
fumiflamma . . 101

EUARMOSTUS . . . 102
bimacula . . 102

PSEUDORUS . . . 103
piceus . . 103

MORIMNA 104
mallophorides . 104

LAPHRIA 105
metalli . . . 105
purpurascens .

NUSA 105
æqualis . . . 105
Formio . . . 106

ACURANA 107
6-fasciata . . 107

SCANDON 108
compactus . . 108

CHÆRADES . . . 109
aurigena . . 109

PHELLUS 110
glaucus . . . 110

MALLOPHORA . . . 111
xylocopides . . 111
fasciata . . 112
opposita . . 112
contraria . . 113
ciliata . . . 114

TRUPANEA . . . 114
univentris . . 114
telifera . . . 115
sagittifera . . 116
captans . . . 117
candens . . 117
mitescens . . 118
substituta . . 119
perfecta . . 120
contracta . . 120
temeraria . . 121
Calanus . . 122
rubiginis . . 123
perpusilla . . 123
producta . . 124
perlonga . . 125
porrecta . . 126

ERAX 127
Mygdon . . 127
Potamon . . 128
Stimicon . . 129
concolor . . 130
asper . . . 130
invarius . . 131
commiles . . 132

ASILUS 132
inumbratus . . 134
penultimus . . 134
discutiens . . 135
ultimus . . . 136
Therimachus . . 137
Congedus . . 138
elicitus . . . 139
Hyagnis . . 139
Herdonius . . 140
Maricus . . 141
Gamaxus . . 142
Trachalus . . 143
Lycorius . . 143
luctificus . . 144
obumbratus . . 145
paterculus . . 146
præfiniens . . 146
villicatus . . 147
Eupator . . 147
Tatius . . . 148
Ctesicles . . 149
opulentus . . 150
Leonides . . 150
Gavius . . . 151

OMMATIUS . . . 152
Jaculator . . 152
manus . . . 153

ATOMOSIA . . . 154
nigroænea . . 154

CORMANSIS . . . 154
halictides . . 154

LEPTOGASTER . . . 155
multicincta . . 155

PHENEUS 155
tibialis . . . 156

LEPTIDÆ . . . 163
RHAGIO 163
alumnus . . 163
LEPTIS 164
atrata . . . 164
clara . . . 164
lucifera . . . 164
SYNECHES . . . 165
simplex . . 165

BOMBYLIDÆ.

THEREVA . . . 157
sequa . . . 157
sequens . . . 158
persequa . . 158
nivaria . . . 159
indica . . . 159
hebes . . . 160
inconspicua . . 160
varians . . . 161
lateralis . . 161
apicalis . . . 162
dejecta . . . 162
innotata . . 455

CHIROMYZA . . . 162
prisca . . . 162
fulvicaput . . 163

ANTHRAX 165
purpuraria . . 169
pulchra . . . 169
onusta . . . 170
semilucida . . 170
albida . . . 171
auriplena . . 171
insulata . . 172
Californiæ . . 172
carbonaria . . 173
ignifera . . 173
recta . . . 174
restituta . . 174
leucotelus . . 175
latifimbria . . 175
ducens . . . 176
obscura . . . 176
ANTHRAX
cognata . . 177
separata . . 177
marginata . . 178
manifesta . . 178
clara . . . 179
lucida . . . 179
limpida . . . 179
aperta . . . 180
lucens . . . 180
apparens . . 180
detecta . . . 181
vitrea . . . 181
pellucida . . 182
translata . . 182
albofulva . . 182
antica . . . 183
instituta . . 183
reducta . . . 184
fumiflamma . . 184
ampla . . . 185
procedens . . 185
gnata . . . 186
congrua . . 186
incisa . . . 187
reperta . . . 188
excisa . . . 188
referens . . . 189
constituta . . 189
cedens . . . 190
divisa . . . 190
illata . . . 191
relata . . . 191
æqua . . . 192
succedens . . 192
antecedens . . 193
australis . . 193

BOMBYLIUS . . . 198
viduus . . . 199
recedens . . 199
maculipes . . 200
signifer . . . 200
socius . . . 201
distinctus . . 201
brevirostris . . 202

PHTHIRIA . . . 194
hilaris . . . 194
compressa . . 195

GERON 195
capensis . . 195

PHILOPOTA . . . 195
sobria . . . 195
temperata . . 196

PARISUS . . . 196
paterculus . . 196

TABUDA 197
fulvipes . . 197

CHORISTUS . . . 197
bifrons . . 198

EMPIDÆ . . . 204
EMPIS . . 204
fimbria . . 204

HILARA 204
litorea . . . 204
certa . . . 204
confirmata . . 205

HYBOS 205
dimidiatus . . 205
integer . . 205
ruficollis . . 206

DOLICHOPIDÆ . 206

PSILOPUS . . . 207
lepidus . . 207
electus . . 207
exemptus . . 208
nitidus . . 208
eximius . . 209
venustus . . 209
exquisitus . . 210
elegans . . 210
sublectus . . 211
gemmarius . . 211

DOLICHOPUS . . . 212
bifrons . . 212
consors . . 213
contingens . . 213
hebes . . . 213
ineptus . . 214
maculipes . . 214
pulcher . . 215
varius . . . 215

MEDETERUS . . . 211
exustus . . 211
viridiflos . . 212

DIAPHORUS . . . 206
femoratus . . 206

PIPUNCULIDÆ . 216

PIPUNCULUS . . . 216
lateralis . . 216

SYRPHIDÆ . . 216

MICRODON . . . 216
Trochilus . . 216

UBRISTES . . . 217
flavitibia . . 217

EUMERUS . . . 224
albifrons . . 224
argenteus . . 224
Privernus . . 225
transiens . . 225

ERISTALIS . . . 245
floridus . . 245
solennis . . 245
Oxycanus . . 246
Everes . . 246
Chalepus . . 247
exterus . . 248
multifarius . . 248
semicirculus . 249
copiosus . . 249
epitome . . 250

MERODON . . . 243
Græcus . . 243
bicolor . . 243
muscæformis . 244

XYLOTA . . . 226
æqualis . . 226

MILESIA . . . 227
laconica . . 227

DEINECHES . . . 227
nigro-fulva . . 228

VOLUCELLA . . . 251
evecta . . 251
linearis . . 251

TEMNOCERA . . . 252
fulvolucens . . 252
metallorum . . 252

CHRYSOTOXUM . . 218
antiquum . . 218
Indicum . . 218
stipatum . . 219
Græcum . . 219

CERATOPHYA . . . 220
variegata . . 220

PARAGUS . . . 220
maculatus . . 220

CHRYSOGASTER . . 228
recedens . . 228

SYRPHUS . . . 229
felix . . . 229
dentatus . . 229
mundus . . 230
tricolor . . 230
Cranapes . . 231
Orsua . . . 231
Opimius . . 232
Caldus . . 232
collatus . . 233

SYRPHUS
expositus . . 233
Ambustus . . 234
Pedius . . 234
Cothonea . . 235
dimensus . . 235
Corbis . . 236
Gurges . . 236
coalescens . . 237
interrogans . 238
Barbula . . 238
Quintius . . 239
Portius . . 239
Pacilus . . 240
Vatia . . 240
Lænas . . 241
Stolo . . . 241

EPISTROPHE . . . 242
conjungens . . 242

BACCHA 221
oblonga . . 221
crassa . . 222
tenuis . . 222
maculata . . 223

AMATHIA . . 223
costalis . . 223

ASCIA 221
striata . 221

CONOPIDÆ . . 253

CONOPS 253
dimidiata . . 254
Pactyas . . 255
minor . . . 255
Sphegiformis . 256
sericea . . 256

MUSCIDÆ . . . 257

TACHINIDES . . 257

GYMNOSOMA . 257
Indica 257

TRICHOPODA . . . 259
decisa . . 259

PHASIA 259
Indica . . 259

HYALOMYA . . . 260
occidentis . . 260

PHANIA 261
Indica . . 261

OCYPTERA . . . 226
marginalis . . 226
diversa . . 262

TACHINA . . . 263
similis . . 266
pilosa . . . 266
triformis . . 267
notata . . 267
varia . . . 268
caliginosa . . 268
lativitta . . 269
similis . . 269
Californiæ . . 270
divisa . . . 270
bomboides . . 271
nitida . . 271
sobria . . . 272
subcinerea . . 272
vittata . . . 273
atra . . . 273
transversa . . 274
obtusa . . 274
dorsalis . . 275
apicalis . . 275
fulva . . . 276
convecta . . 276
exul . . . 277
insolita . . 277
grandis . . 278
australis . . 279
squamata . . 279
concisa . . 280
remota . . 280
basalis . . 281
lucifera . . 282
ornata . . 282

TACHINA
albifrons . . 283
latifrons . . 284
nigro-rufa . . 284
atrata . . . 284
contermina . . 285
basalis . . 285
socia . . . 286
fuliginosa . . 286
proxima . . 287
tincta . . 287
imbuta . . 288
densa . . 288
hebes . . . 289
addita . . 290
atriventris . . 290
umbrosa . . 291
dubia . . . 291
adusta . . 292
alta . . . 293
picea . . . 293
umbrifera . . 294
compacta . . 294
interrupta . . 295
obconica . . 296
chrysotelus . . 296
subpicea . . 297
sordida . . 297
subaurata . . 298
antennata . . 298
ancilla . . 299
subvaria . . 299
vulgata . . 300
tricincta . . 301
vittata . . 301
tenebrifera . . 302
scita . . . 302
cincta . . . 303
nigrifera . . 303
atratula . . 304
ruficornis . . 304

GONIA 305
Indica . . 305

DEXIDES . . . 305

DEXIA 305
obscura . . 307
fusiformis . . 307
dorsalis . . 308

Dexia
muscaria . . 308
notata . . 309
canescens . . 310
postica . . 310
basalis . . 311
longa . . . 311
convexa . . 312
subcompressa . 313
pedestris . . 313
angusta . . 314
australis . . 314
plana . . . 315
tenuipes . . 316
semipicta . . 316
suffusa . . 317
albifrons . . 317
insolita . . 318
quadrimaculata . 319

SARCOPHAGIDES . 319

Sarcophaga . . . 319
purpurascens . 320
hirtipes . . 321
parva . . . 321
derelicta . . 322
maculosa . . 322
decisa . . . 323
comes . . . 323
suffusa . . 324
advena . . 324
incerta . . 324
aurifinis . . 325
cognata . . 325
sericea . . 326
fulvivitta . . 326
calida . . . 326
contermina . . 327
bifrons . . 327
assidua . . 328
fulvipes . . 328
basalis . . 328
pallipes . . 329
chrysotelus . . 329

MUSCIDES . . 330

Musca 330
cuprea . . 331
occidentis . . 332

Musca
concolor . . 333
divisa . . . 333
incerta . . 334
aucta . . . 334
violacea . . 335
inducta . . 335
suffusa . . 336
turbida . . 336
fasciata . . 337
purpurea . . 337
polita . . . 338
hebes . . . 338
felix . . . 338
bicolor . . 339
leucocephala . 339
serenissimma . 340
insularis . . 340
temperata . . 340
proxima . . 341
bigemmis . . 341
varia . . . 342
connexa . . 342
placida . . 343
interrupta . . 343
contigua . . 344
dubia . . . 344
costalis . . 344
determinata . 345
chrysotelus . . 346
obscura . . 346
distincta . . 346
basalis . . 347
occidentis . . 347
extrema . . 348
stipata . . 348
vicaria . . 348
serva . . . 349

Idia 350
varia . . . 350

ANTHOMYIDES . 350

Anthomyia . . . 350
præcipua . . 351
stupida . . 351
Indica . . 352
unicolor . . 353
subpunctata . 353
solita . . . 354

ANTHOMYIA
incerta . . 354
solita . . . 354
tarsalis . . 355
adjecta . . 355
terminalis . . 356
detracta . . 356
maculosa . . 357
maculipennis . 357
tricolor . . 358
fumifera . . 358
translata . . 359
addita . . . 359
inserta . . 360
inducta . . 360
leucotelus . . 361
vicaria . . 361
introducta . . 362
indicata . . 362
aliena . . 363
adducta . . 363
certa . . . 364
despecta . . 364
maura . . 364
Æthiops . . 365
tenuior . . 365
Brasiliensis . 366
communis . 366

CÆNOSIA . . . 367
tarsalis . . 367
antica . . . 367
lata . . . 368
solita . . . 368
atrata . . . 369
intacta . . 369

HELOMYZIDES

SCIOMYZA . . . 397
squalida . . 397
lineata . . 398
testacea . . 398
australis . . 399
repleta . . . 399
capensis . . 400
antica . . . 400
parallela . . 401

HELOMYZA . 404
rufifrons 404

HELOMYZA
pallida . . 405
angusta . . 405
velutina . . 405
maura . . 406

HETEROMYZA . . 403
robusta . . 403
cinctipes . . 404

DRYOMYZA . . . 370
bicolor . . 370

TETANOCERA . . 401
cornuta . . 401
australis . . 402

THECOMYIA . . . 402
longicornis . . 402

LAUXANIDES

LAUXANIA . . . 377
polita . . . 377
indistincta . 377

LONCHÆA . . . 378
indistincta . . 378
Brasiliensis . 378

SAPROMYZA . . . 371
tincta . . . 371
metallica . . 371
lateralis . . 371
Brasiliensis . . 372

ORTALIDES

ULIDIA 397
divergens . . 397

ORTALIS . . . 372
conspersa . . 372
conformis . . 373
basalis . . 373
angusta . . 374

ROPALOMERA . . 375
tibialis . . 375
varipes . . 375

TRYPETA . . 378
antiqua . . 378
dubia . . . 379
conferta . . 379
cylindrica . . 380
basalis . . 380
divisa . . 381
parallela . . 381
flexuosa . . 382
varia . . . 382
albovaria . . 383
arcuata . . 383
scutellata . . 384
albida . . 384
mixta . . . 385
contraria . . 385
quadrigutta . 386
panthorina . . 386
excepta . . 387
ferruginea . . 387
læta . . . 388

SEPSIDES

SEPSIS 376
terminalis . . 376
distincta . . 376

CALOBATA . . . 389
compressa . . 389
brevipennis . . 389
terminalis . . 390
valida . . . 390
picea . . . 391
basalis . . 391
leucomelas . . 392
varipes . . 392
nigrifilum . . 393
tenuipes . . 393

CALOBATA
atra . . . 394
guttata . . 394
contracta . . 395
bicolor . . 395
argentata . . 396

OSCINIDES

CHLOROPS . . . 414
Brasiliensis . 414

GEOMYZIDES

GYMNOPA . . . 413
nigro-ænea . . 413
tarsalis . . 413

OPOMYZA . . . 413
lineata . . 413

DROSOPHILA . . . 410
quadrimaculata . 410
albipes . . 410
fronto . . . 410
linearis . . 411
brevis . . . 411
decemguttata . 411
minuta . . 412
tarsalis . . 412
atra . . . 412

HYDROMYZIDES

NOTIPHILA . . . 406
solita . . . 406
argentata . . 407
transversa . . 407
Brasiliensis . 408
costalis . . 408

EPHYDRA . . 409
pinguis 409
australis . 409

REFERENCES TO THE PLATES.

PLATE I.

Fig. 1. Acanthomera magnifica. 77, S.A,
„ 2. Pangonia comprehensa. 11 — Para
„ 3. Pangonia alboatra. 13 Cape
„ 4. Cyclotelus pruinosus.
„ 5. Phycus canescens. 2
„ 6. Dimassus terminalis.
„ 7. Inopus despectus.

PLATE II.

Fig. 1. Tabanus erythrotelus. 24. Bolton (no local.?)
„ 2. Tabanus discifer. 35, Para
„ 3. Tabanus hilaris.
„ 4, 5. Tabanus Pyrrhus. 47, E Indies
„ 6. Dichelacera prætereuns. 69. S.A,
„ 7. Scepsis nivalis.
„ 8. Tabanus submacula. 30 Columbia

PLATE III.

Fig. 1. Cacosis niger.
„ 2. Ptilocera continua.
„ 3. Biastes Indicus.
„ 4. Metabasis rostratus.
„ 5. Cabasa rufithorax.
„ 6. Prolepsis fumiflamma.
„ 7. Cyrtopogon laphrides.
„ 8. Discocephala alboatra.

PLATE IV.

Fig. 1. Euarmostus bimacula.
„ 2. Morimna mallophorides.
„ 3. Pheneus tibialis.
„ 4. Nusa æqualis.
„ 5. Pseudorus piceus.
„ 6. Phellus glaucus.
„ 7. Scandon compactus.
„ 8. Chlærades aurigena.

PLATE V.

Fig. 1. Exetasis tumens.
„ 2. Ubristes flavitibia.
„ 3. Mixtemyia quadrifasciata.
„ 4. Colax Javanus?
„ 5. Choristus bifrons.
„ 6. Cyllenia aberrans.
„ 7. Synchus simplex.
„ 8. Parisus paterculus.

PLATE VI.

Fig. 1. Niconia penthophora (Empis penthophora, *Wied. Auss. Zweifl.* ii. 4, 6).
„ 2. Psilopus gemmarus.
„ 3. Phthiria compressa.
„ 4. Tabuda fulvipes.
„ 5. Epistrophe conjungens.
„ 6. Ceratophya variegata.
„ 7. Deineches nigro-fulva.
„ 8. Dolichogyma chilensis.

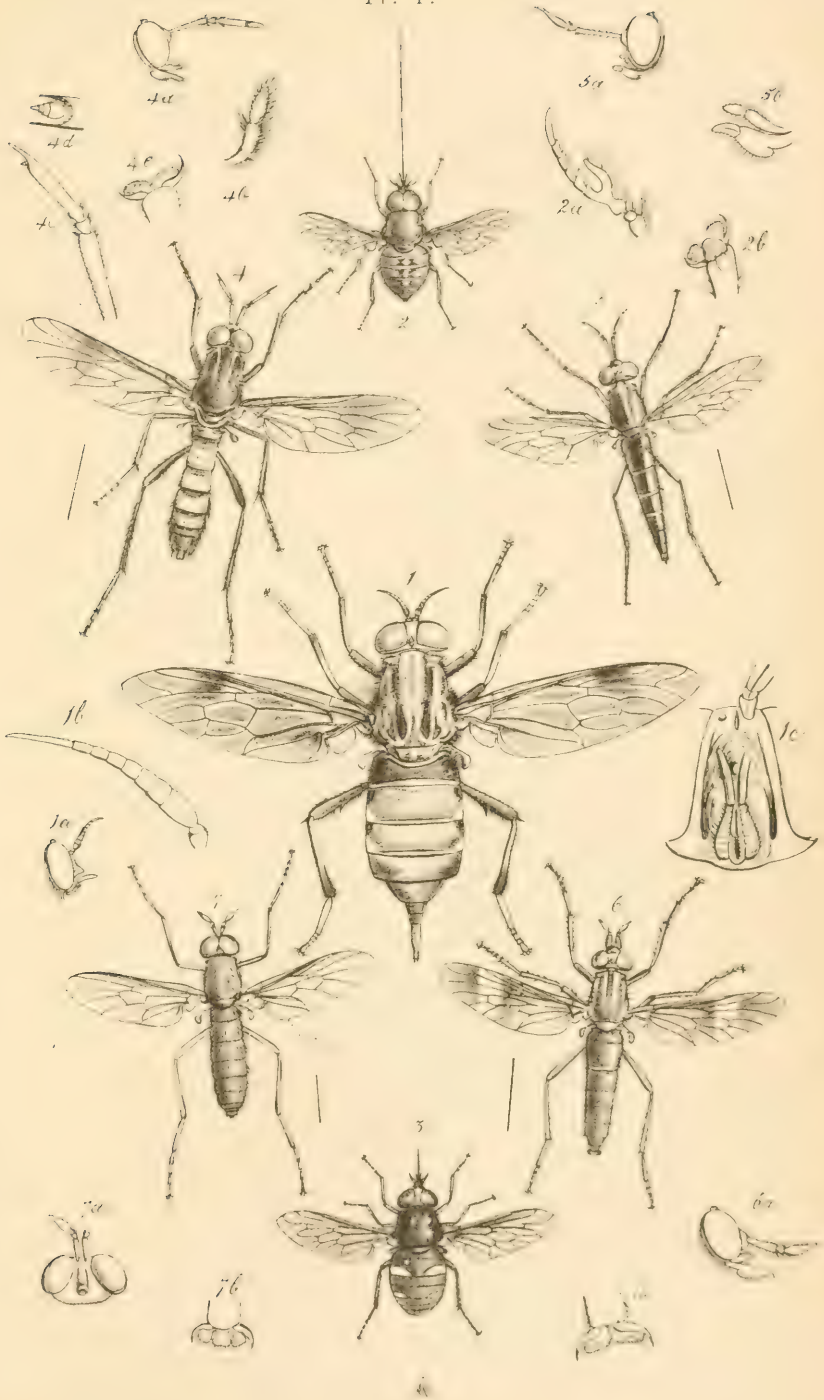
PLATE VII.

Fig. 1. Tachina grandis.
„ 2. Tachina insolita.
„ 3. Tachina fulva.
„ 4. Phania Indica.
„ 5. Ocyptera diversa.
„ 6. Calobata picea.
„ 7. Calobata atra.
„ 8. Ropalomera tibialis.

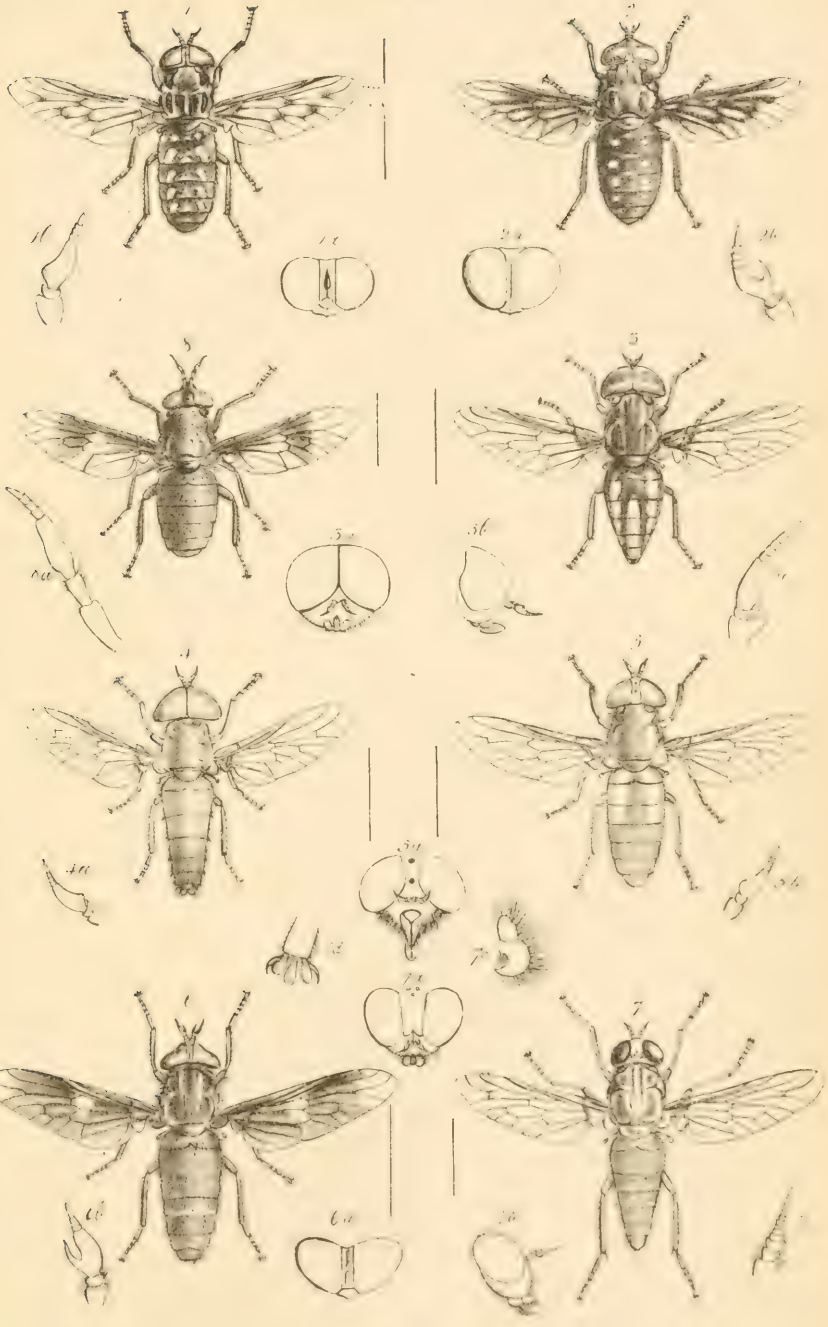
PLATE VIII.

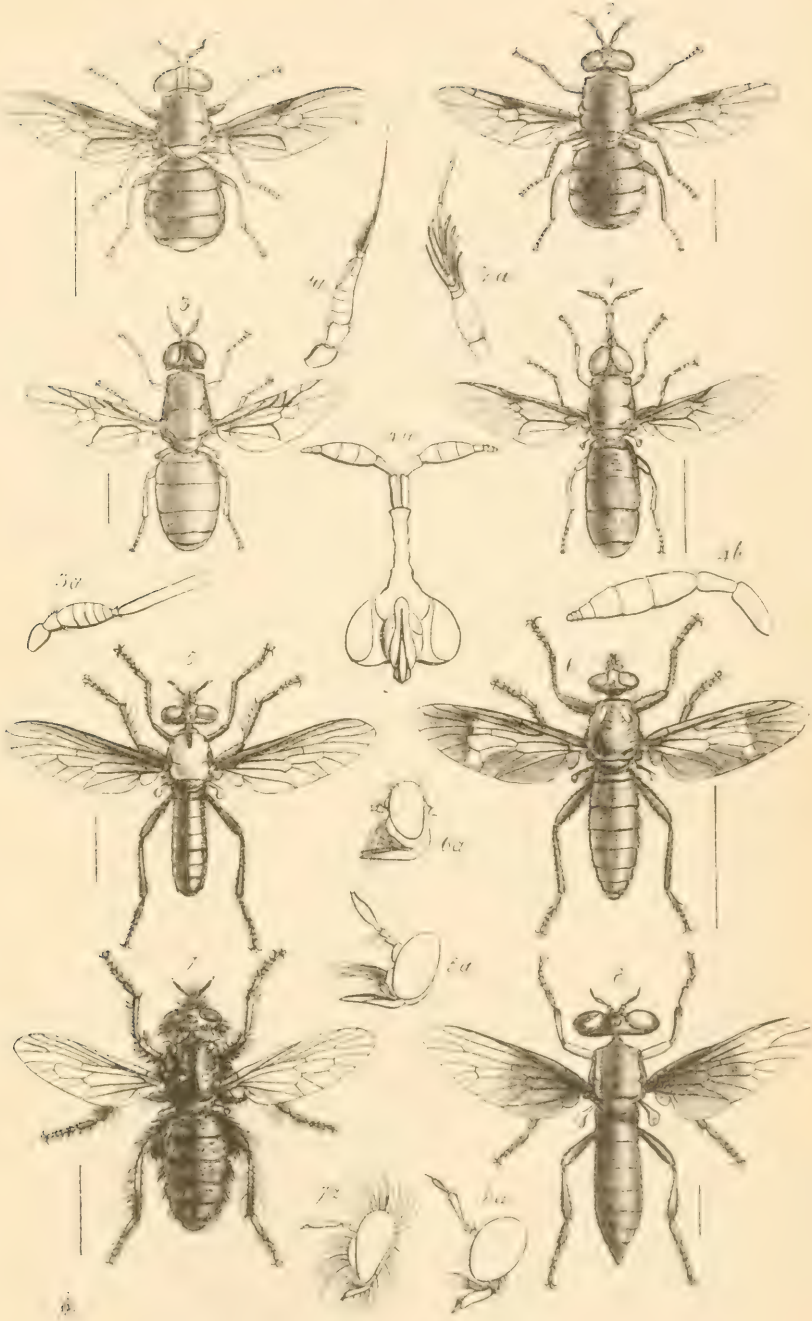
Fig. 1. Trypeta basalis.
„ 2. Trypeta flexuosa.
„ 3. Trypeta arcuata.
„ 4. Trypeta albovaria.
„ 5. Trypeta scutellata.
„ 6. Trypeta cylindrica.
„ 7. Trypeta contraria.
„ 8. Trypeta excepta.

E. NEWMAN, PRINTER, 9, DEVONSHIRE STREET, BISHOPSGATE, LONDON.

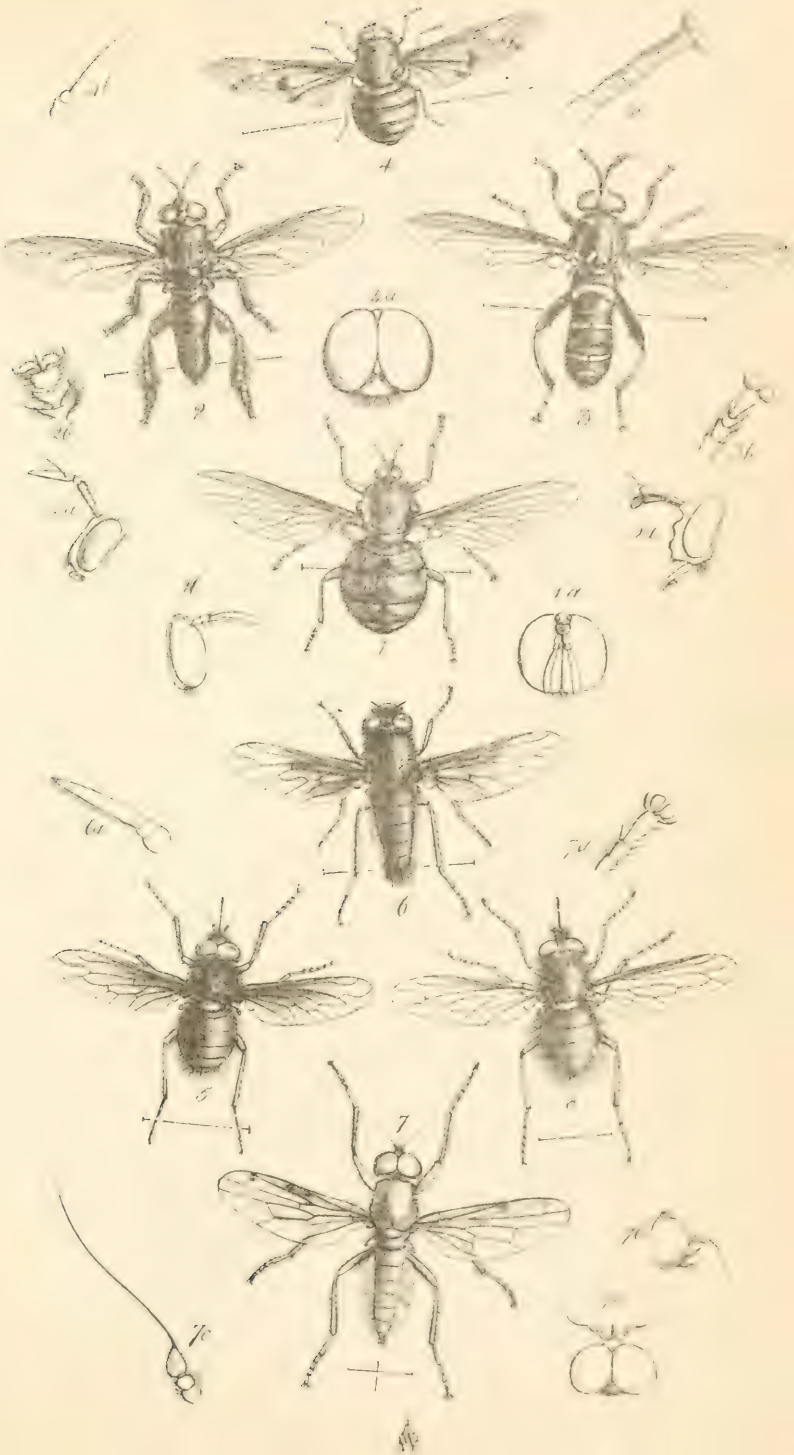

4a
4d
4c
4b
4
2a
2b
2
1
1b
1a
1c
7
6
3
7a
7b
6a
6b

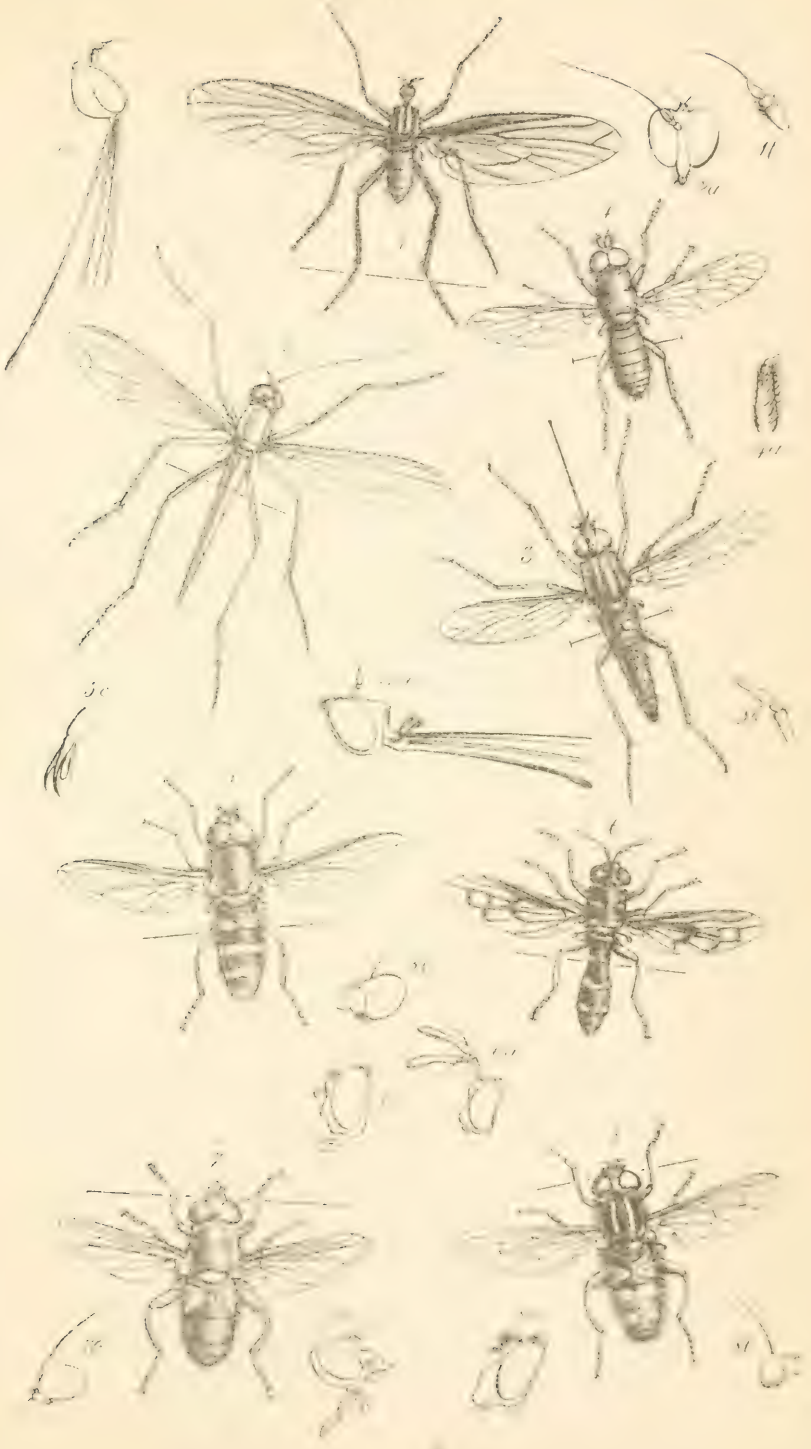
PL. 2.

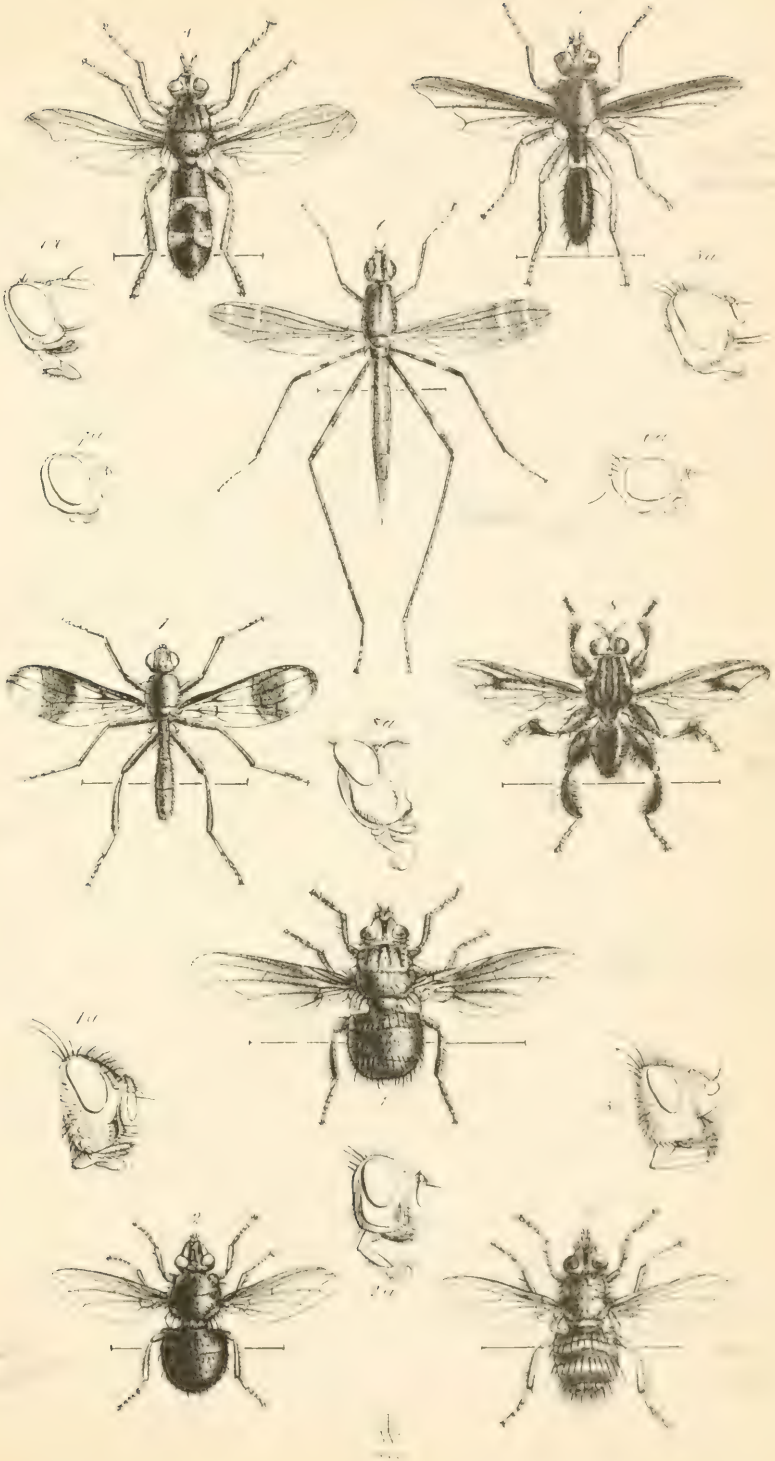


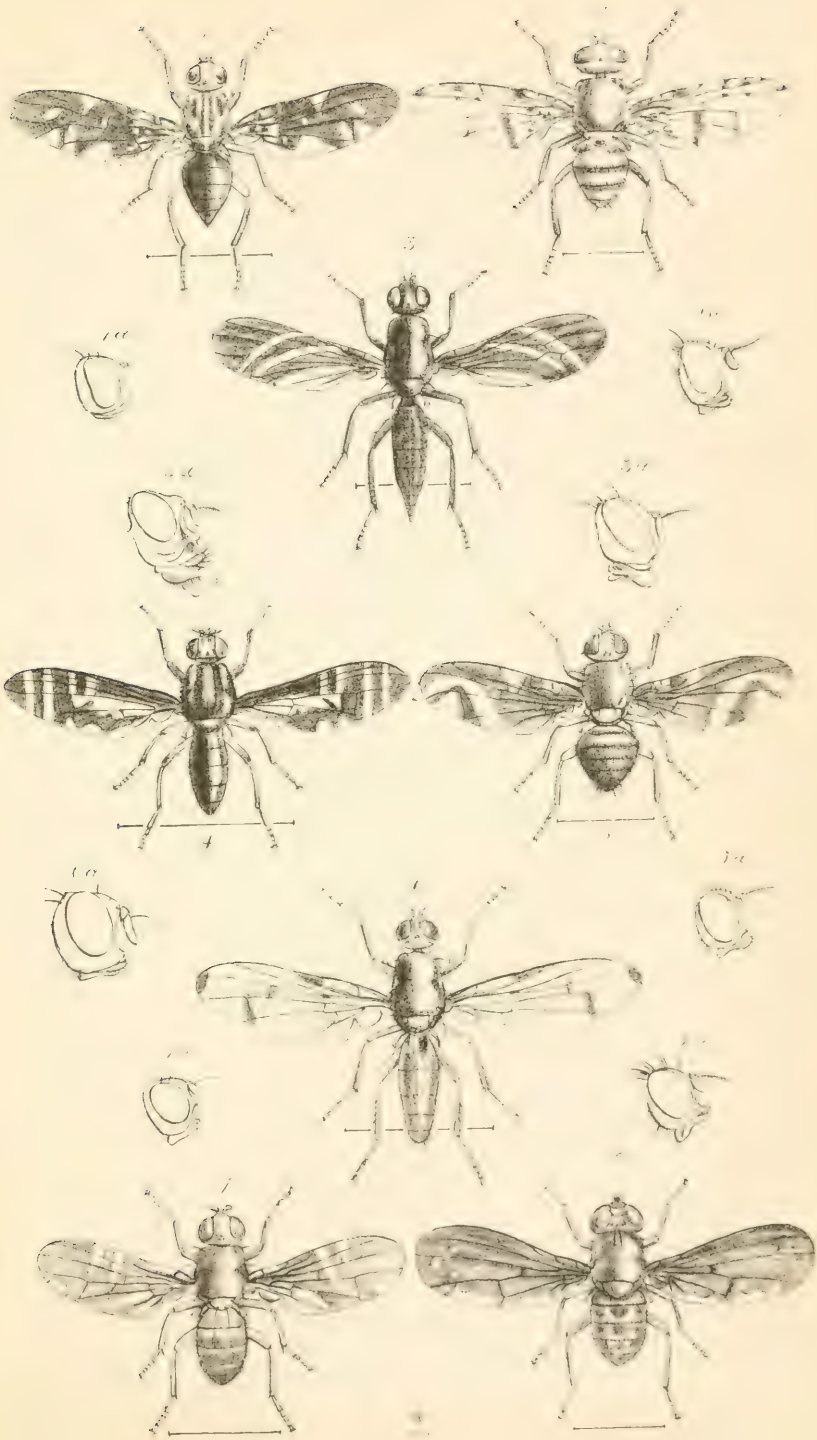





4
9
3
7
6
5
8
2
1







SMITHSONIAN INSTITUTION LIBRARIES
3 9088 00314387 2
nhent QL534.W17
Insecta Saundersiana: or Characters of u